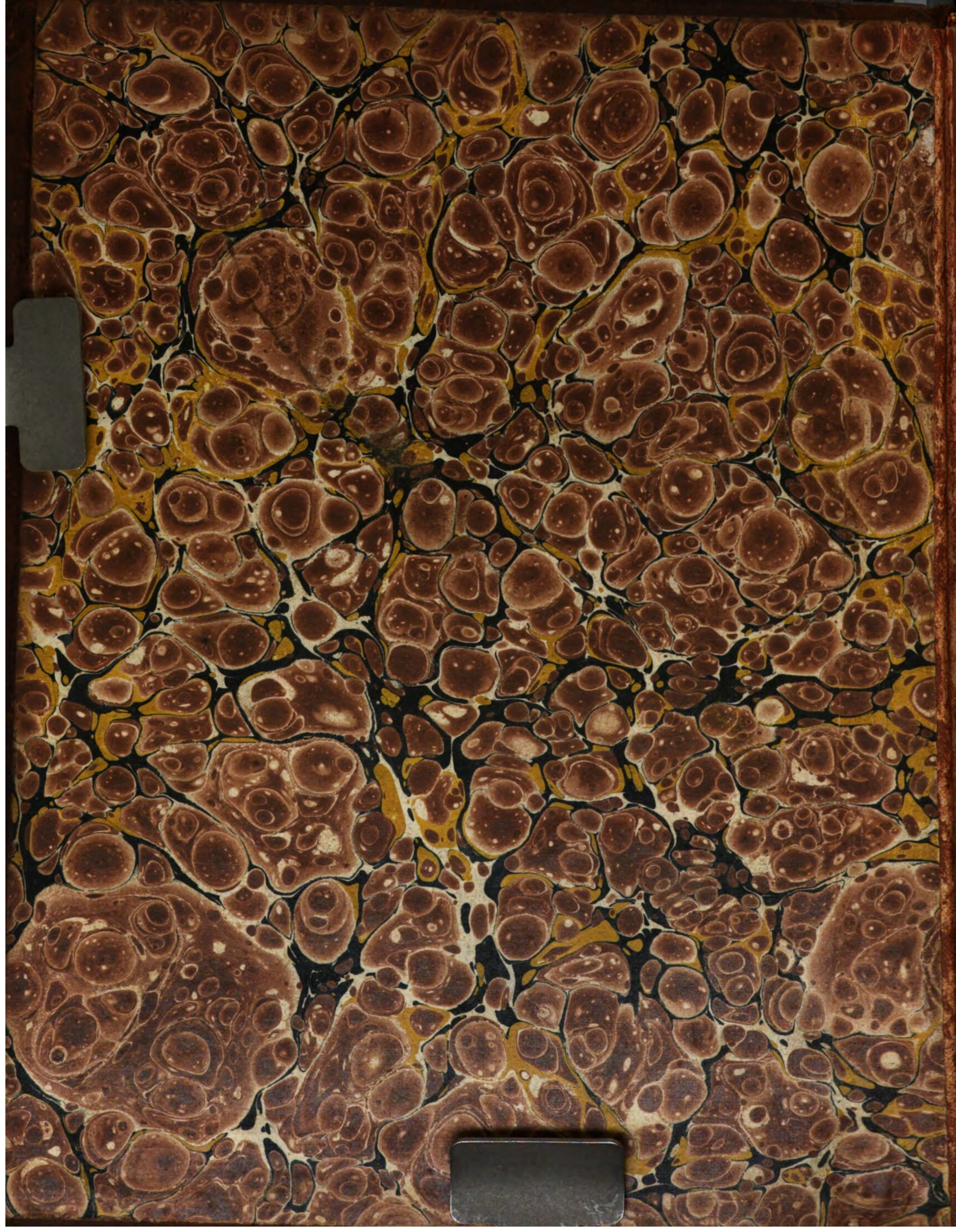
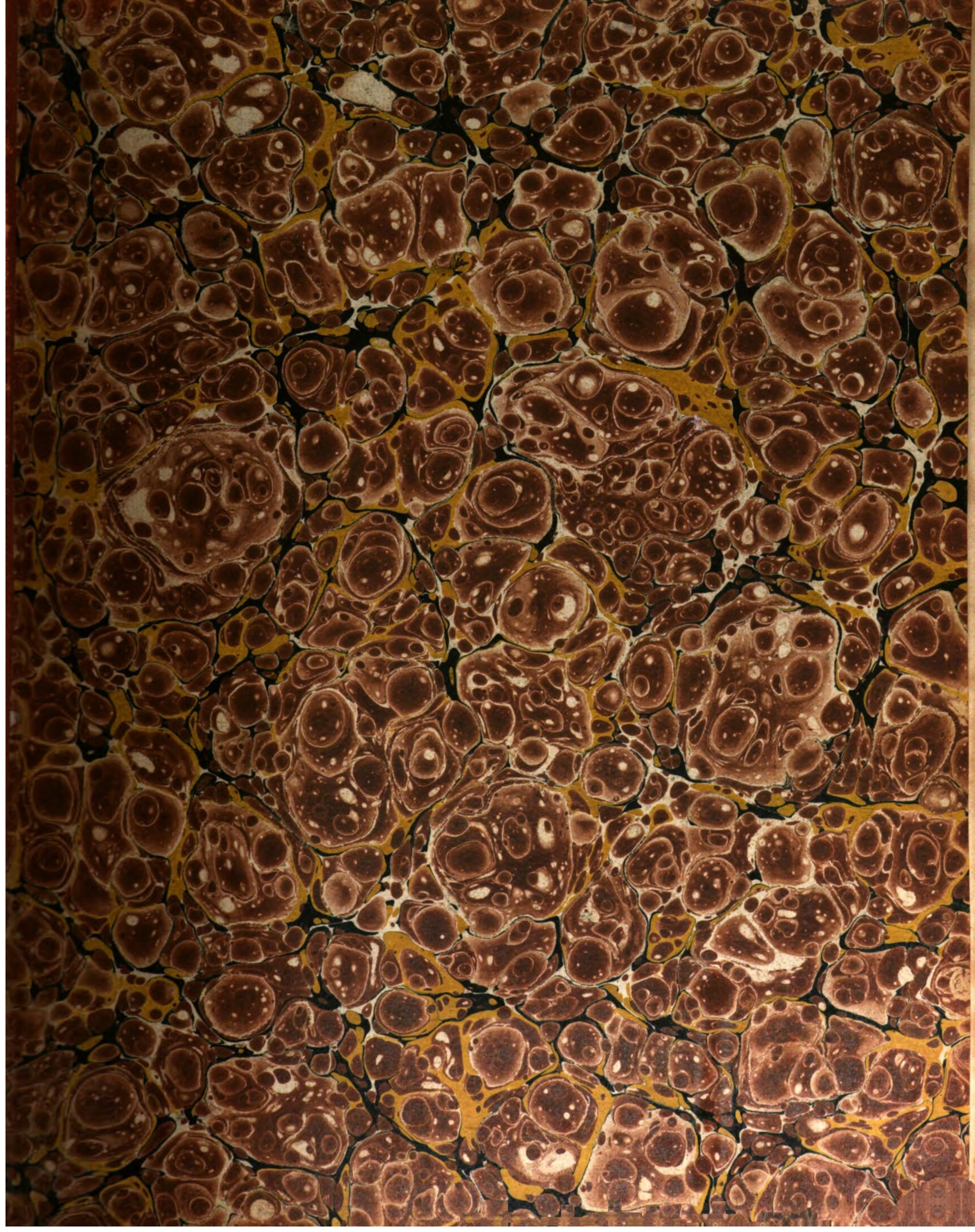








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A
GENERAL COLLECTION
OF THE
BEST AND MOST INTERESTING
VOYAGES AND TRAVELS
IN ALL PARTS OF THE WORLD;

MANY OF WHICH ARE NOW FIRST TRANSLATED INTO ENGLISH.

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VOLUME THE THIRTEENTH.

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A
GENERAL COLLECTION
OF
VOYAGES AND TRAVELS.

NORTH AMERICA, continued.

THE
GENERAL HISTORY
OF
VIRGINIA, NEW ENGLAND, AND THE SUMMER ISLES :

WITH THE
Names of the Adventurers, Planters, and Governors, from their first beginning, Anno 1584, to this
present 1624 ; with the Proceedings of those several Colonies, and the Accidents that befell them
in all their Journies and Discoveries.

ALSO,
THE MAPS AND DESCRIPTIONS OF ALL THOSE COUNTRIES, THEIR COMMODITIES,
PEOPLE, GOVERNMENT, CUSTOMS, AND RELIGION, YET KNOWN.

Divided into Six Books.

By Captain JOHN SMITH,
Sometime Governor in those Countries, and Admiral of New England. *

TO THE ILLUSTRIOUS AND MOST NOBLE PRINCESS, THE LADY FRANCES,
DUCHESS OF RICHMOND AND LENOX.

May it please Your Grace,

THIS History, as for the rarity and variety of the subject, so much more for the
judicious eyes it is like to undergo, and most of all for that great name, whereof
it dareth implore protection, might and ought to have been clad in better robes than my
rude military hand can cut out in paper ornaments. But because, of the most things

* London, 1624, folio.

VOL. XIII.

B

therein,

therein, I am no compiler by hearsay, but have been a real actor; I take myself to have a property in them; and therefore have been bold to challenge them to come under the reach of my own rough pen. That, which hath been indured and passed through with hardship and danger, is thereby sweetened to the actor, when he becometh the relator. I have deeply hazarded myself in doing and suffering, and why should I stick to hazard my reputation in recording? He that acteth two parts is the more borne withal if he come short, or fail in one of them. Where shall we look to find a Julius Cæsar, whose achievements shine as clear in his own commentaries, as they did in the field? I confess, my hand, though able to wield a weapon among the barbarous, yet well may tremble in handling a pen among so many judicious: especially when I am so bold as to call so piercing, and so glorious an eye, as Your Grace, to view these poor ragged lines.

Yet my comfort is, that heretofore honorable and virtuous ladies, and comparable but amongst themselves, have offered me rescue and protection in my greatest dangers: even in foreign parts, I have felt relief from that sex. The beauteous Lady Tragabigzanda, when I was a slave to the Turks, did all she could to secure me. When I overcame the Bashaw of Nalbrits in Tartaria, the charitable Lady Callamata supplied my necessities. In the utmost of many extremities, that blessed Pokahontas, the great King's daughter of Virginia, oft saved my life. When I escaped the cruelty of pirates and most furious storms, a long time alone in a small boat at sea, and driven ashore in France, the good lady Madam Chanoyes, bountifully assisted me.

And so verily these my adventures have tasted the same influence from your gracious hand, which hath given birth to the publication of this narration. If therefore your Grace shall deign to cast your eye on this poor book, view, I pray you, rather your own bounty (without which it had died in the womb) than my imperfections, which have no help but the shrine of your glorious name to be sheltered from censorious condemnation. Vouchsafe some glimpse of your honourable aspect, to accept these my labours; to protect them under the shadow of your excellent name: which will enable them to be presented to the King's royal Majesty, the most admired Prince Charles, and the Queen of Bohemia: your sweet recommendations will make it the worthier of their good countenances. And as all my endeavours are their due tribute: so this page shall record to posterity, that my service shall be to pray to God, that you may still continue the renowned of your sex, the most honored of men, and the highly blessed of God.

Your Grace's faithful and devoted servant,

JOHN SMITH.

A PREFACE OF FOUR POINTS.

1. THIS plain history humbly sheweth the truth; that our most royal King James hath place and opportunity to enlarge his ancient dominions without wronging any (which is a condition most agreeable to his most just and pious resolutions): and the Prince His Highness may see where to plant new colonies. The gaining provinces addeth to the King's crown; but the reducing heathen people to civility and true religion, bringeth honour to the King of Heaven. If his princely wisdom and powerful hand

hand, renowned through the world for admirable government, please but to set these new estates into order, their composure will be singular: the counsel of divers is confused; the general stock is consumed; nothing but the touch of the King's sacred hand can erect a monarchy.

2. Most noble Lords and worthy Gentlemen, it is your Honours that have employed great pains and large expence in laying the foundation of this state, wherein much hath been buried under ground, yet something hath sprung up, and given you a taste of your adventures. Let no difficulties alter your noble intentions. The action is an honour to your country; and the issue may well reimburse you your sums expended. Our practices have hitherto been but essays, and are still to be amended. Let your bounty supply the necessities of weak beginnings, and your excellent judgments rectify the proceedings; the return cannot choose in the end but bring you good commodities, and good contentments, by your advancing shipping and fishing, so useful unto our nation.

3. Ye valiant and generous spirits, personal possessors of these new-found territories, banish from among you cowardice, covetousness, jealousies, and idleness, enemies to the raising your honours and fortunes; virtue, industry, and amity will make you good and great, and your merits live to ensuing ages. You that, in contempt of necessities, hazard your lives and estates, employing your studies and labours in these fair endeavours, live and prosper as I desire my soul should prosper.

4. For myself, let emulation and envy cease; I ever intended my actions should be upright: now my care hath been that my relations should give every man they concern their due. But had I not discovered and lived in the most of those parts, I could not possibly have collected the substantial truth from such a number of variable relations, that would have made a volume at least of a thousand sheets. Though the beginning may seem harsh in regard of the antiquities, brevity, and names, a pleasanter discourse ensues. The style of a soldier is not eloquent, but honest and justifiable; so I desire all my friends and well-wishers to excuse and accept it, and if any be so noble as to respect it, he that brought New England to light, though long since brought in obscurity, he is again to be found a true servant to all good designs.

So I ever rest yours to command,

JOHN SMITH.

BOOK I.

How ancient Authors report the New World, now called America, was discovered: and Part thereof first planted by the English, called Virginia, with the Accidents and Proceedings of the same.

FOR the stories of Arthur, Malgo, and Brandon, that say a thousand years ago they were in the North of America; or the friar of Lynn, that by his black art went to the North Pole in the year 1360, in that I know them not. Let this suffice.

The chronicles of Wales report, that Madock, son to Owen Quineth, Prince of Wales, seeing his two brethren at debate who should inherit, prepared certain ships,

with men and munition, and left his country to seek adventures by sea. Leaving Ireland north, he sailed west till he came to a land unknown. Returning home, and relating what pleasant and fruitful countries he had seen without inhabitants, and for what barren ground his brethren and kindred did murder one another, he provided a number of ships, and got with him such men and women as were desirous to live in quietness, that arrived with him in this new land in the year 1170: left many of his people there, and returned for more. But where this place was no history can shew.

The Spaniards say, Hanno, a Prince of Carthage was the first: and the next, Christopher Columbus, a Genoefian, whom they sent to discover those unknown parts, 1492.

But we find by records, Columbus offered his service in the year 1488, to King Henry the Seventh, and by accident undertook it for the Spaniards. In the interim, King Henry gave a commission to John Cabot and his three sons, Sebastian, Lewis, and Sautius. John and Sebastian, well provided, setting sail, ranged a great part of this unknown world, in the year 1497. For though Columbus had found certain isles, it was 1498 ere he saw the continent, which was a year after Cabot. Now Americus came a long time after, though the whole continent to this day is called America, after his name, yet Sebastian Cabot discovered much more than them all, for he sailed to about forty degrees southward of the line, and to sixty-seven towards the north: for which King Henry the Eighth knighted him, and made him Grand Pilate of England. Being very aged, King Edward the Sixth gave him a pension of 166l. 13s. 4d. yearly. By his directions Sir Hugh Willowby was sent to find out the country of Russia, but the next year he was found frozen to death in his ship, and all his company.

Mr. Martin Frobisher was sent in the year 1576, by our most gracious Queen Elizabeth, to search for the north-west passage, and *meta incognita*: for which he was knighted, honoured, and well rewarded.

Sir Humphrey Gilbert, a worthy knight, attempted a plantation in some of those parts, and obtained letters patent to his desire; but with this proviso, he should maintain possession in some of those vast countries within the term of six years. Yet when he was provided with a navy able to encounter a king's power, even here at home they fell in divisions, and so into confusion, that they gave over the design ere it was begun. Notwithstanding all this loss, his undaunted spirit began again, but his fleet fell with Newfoundland, and he perished in his return, as at large you may read in the third volume of the English Voyages, written by Mr. Hackluit.

Upon all those relations and inducements, Sir Walter Raleigh, a noble gentleman, and then in great esteem, undertook to send to discover to the southward. And though his occasions and other employments were such he could not go himself, yet he procured Her Majesty's letters patent, and persuaded many worthy knights and gentlemen to adventure with him to find a place fit for a plantation. Their proceedings followeth.

The most famous, renowned, and ever worthy of all memory, for her courage, learning, judgment, and virtue, Queen Elizabeth, granted her letters patents to Sir Walter Raleigh, for the discovering and planting new lands and countries, not actually possessed by any Christians. This patentee got to be his assistants Sir Richard Grenvill, the valiant; Mr. William Sanderfon, a great friend to all such noble and worthy actions; and divers other gentlemen and merchants, who with all speed provided two small barks well furnished with all necessaries, under the command of Captain Philip

Amidas and Captain Barlow. The 27th of April they set sail from the Thames, the 10th of May passed the Canaries, and the 10th of June the West Indies; which unneeded southerly course (but then no better was known) occasioned them in that season much sickness.

The 2d of July they fell in with the coast of Florida in shoal water, where they felt a most delicate sweet smell, though they saw no land, which ere long they espied, thinking it the continent: an hundred and twenty miles they sailed, not finding any harbour. The first that appeared with much difficulty they entered, and anchored, and after thanks to God, they went to view the next land adjoining, to take possession of it for the Queen's most Excellent Majesty; which done, they found their first landing-place very sandy and low, but so full of grapes that the very surge of the sea sometimes overflowed them; of which they found such plenty in all places, both on the sand, the green soil, and hills, as in the plains, as well on every little shrub, as also climbing towards the tops of high cedars, that they did think in the world were not the like abundance.

We passed by the sea-side towards the tops of the next hills, being not high, from whence we might see the sea on both sides, and found it an isle of twenty miles in length and six in breadth, the vallies replenished with goodly tall cedars. Discharging our musquets, such a flock of cranes, the most white, arose by us, with such a cry, as if an army of men had shouted altogether. This isle hath many goodly woods, and deer, conies, and fowl in incredible abundance; and, using the author's own phrase, the woods are not such as you find in Bohemia, Muscovy, or Hircinia, barren and fruitless, but the highest and reddest cedars of the world, bettering them of the Azores, Indies, or Libanus; pines, cypresses, saffrafras, the lentisk that beareth mastic, and many other of excellent smell and quality. Till the third day we saw not any of the people; then in a little boat three of them appeared; one of them went on shore, to whom we rowed, and he attended us without any sign of fear. After he had spoke much, though we understood not a word, of his own accord he came boldly aboard us; we gave him a shirt, a hat, wine, and meat, which he liked well, and after he had well viewed the barks and us, he went away in his own boat, and within a quarter of a mile of us, in half an hour, had laden his boat with fish, with which he came again to the point of land, and there divided it in two parts, pointing one part to the ship the other to the pinnace, and so departed.

The next day came divers boats, and in one of them the King's brother, with forty or fifty men, proper people, and in their behaviour very civil; his name was Granganameo, the King is called Wingina, the country Wingandacoa. Leaving his boats a little from our ships, he came with his train to the point: where spreading a mat he sat down. Though we came to him well armed, he made signs to us to sit down without any shew of fear, stroking his head and breast, and also ours to express his love. After he had made a long speech unto us, we presented him with divers toys, which he kindly accepted. He was greatly regarded by his people, for none of them did sit, nor speak a word, but four, on whom we bestowed presents also, but he took all from them, making signs all things did belong to him.

The King himself in a conflict with a King his next neighbour and mortal enemy, was shot in two places through the body, and the thigh, yet recovered, whereby he lay at his chief town, six days journey from thence.

A day or two after shewing them what we had, Granganameo taking most liking to a pewter dish, made a hole in it, hung it about his neck for a breast-plate, for which he gave

gave us twenty deer skins, worth twenty crowns; and for a copper kettle, fifty skins, worth fifty crowns. Much other truck we had, and after two days he came aboard, and did eat and drink with us very merrily. Not long after he brought his wife and children; they were but of mean stature, but well-favoured and very bashful; she had a long coat of leather, and about her privities a piece of the same, about her forehead a band of white coral, and so had her husband, in her ears were bracelets of pearl, hanging down to her middle, of the bigness of great peas; the rest of the women had pendants of copper, and the noblemen five or six in an ear; his apparel as his wives, only the women wear their hair long on both sides, and the men but on one; they are of colour yellow, but their hair is black, yet we saw children that had very fair chestnut-coloured hair.

After that these women had been here with us, there came down from all parts great store of people, with leather, coral, and divers kinds of dyes, but when Granganameo was present, none durst trade but himself, and them that wore red copper on their heads, as he did. Whenever he came, he would signify by so many fires he came with so many boats, that we might know his strength. Their boats are but one great tree, which is but burnt in the form of a trough with gins and fire, till it be as they would have it. For an armour he would have engaged us a bag of pearl, but we refused, as not regarding it, that we might the better learn where it grew. He was very just of his promise, for often we trusted him, and he would come within his day to keep his word. He sent us commonly every day a brace of bucks, conies, hares, and fish, sometimes melons, walnuts, cucumbers, peas, and divers roots. This author sayeth, their corn groweth three times in five months; in May they sow, in July reap; in June they sow, in August reap; in July sow, in August reap. We put some of our peas in the ground, which in ten days were fourteen inches high.

The soil is most plentiful, sweet, wholesome, and fruitful of all other; there are about fourteen several sorts of sweet swelling timber trees: the most parts of the underwood, bays, and such like: such oaks as we, but far greater and better. After this acquaintance, myself with seven more went twenty mile into the river Occam, that runneth toward the city Skicoack, and the evening following we came to an isle called Roanoak, from the harbour where we entered seven leagues; at the north end was nine houses, builded with cedar, fortified round with sharp trees, and the entrance like a turnpike. When we came towards it, the wife of Granganameo came running out to meet us (her husband was absent,) commanding her people to draw our boat ashore for beating on the billows, others she appointed to carry us on their backs aland, others to bring our oars into the house for stealing. When we came into the other room, (for there was five in the house,) she caused us to sit down by a great fire; after, took off our clothes and washed them, of some our stockings, and some our feet in warm water, and she herself took much pains to see all things well ordered, and to provide us victual.

After we had thus dried ourselves, she brought us into an inner room, where she set on the board standing along the house somewhat like frumenty, sodden venison, and roasted fish; in like manner melons raw, boiled roots and fruits of divers kinds. There, drink is commonly water boiled with ginger, sometimes with saffrafras, and wholesome herbs, but whilst the grape lasteth they drink wine. More love she could not express to entertain us; they care but only to defend themselves from the short winter, and feed on what they find natural in summer. In this feasting house was their idol, of whom they told us incredible things. When we were at meat two or three of her men came amongst us with their bows and arrows, which caused us to take our

arms in hand. She perceiving our distrust, caused their bows and arrows to be broken, and they beaten out of the gate: but the evening approaching we returned to our boat, where at she much grieving, brought our supper half-boiled, pots and all, but when she saw us, but put our boat a little off from the shore and lie at anchor, perceiving our jealousy, she sent divers men and thirty women to sit all night on the shore side against us, and sent us five mats to cover us from the rain, doing all she could to persuade us to her house. Though there was no cause of doubt, we would not adventure: for on our safety depended the voyage: but a more kind loving people cannot be. Beyond this isle is the main land and the great river Occam, on which standeth a town called Pomeiock, and six days higher, their city Skicoak: those people never saw it, but say their fathers affirm it to be above two hours journey about. Into this river falleth another called Cipo, where is found many mussels wherein are pearls: likewise another river called Nomapona, on the one side whereof standeth a great town called Chamanock, the lord of the country is not subject to Wingandacoa. Beyond him another King they call Menatonon. These three are in league with each other. Towards the south, four days journey, is Sequotan, the southernmost part of Wingandacoa.

Adjoining to Secotan beginneth the country Pomouik, belonging to the King called Piamacum, in the country Nusiok, upon the great river Neus. These have mortal wars with Wingina, King of Wingandacoa. Betwixt Piamacum and the lord of Secotan, a peace was concluded, notwithstanding there is a mortal malice in the Secotans, because this Piamacum invited divers men and thirty women to a feast, and when they were altogether merry before their idol, which is but a mere illusion of the devil, they suddenly slew all the men of Secotan, and kept the women for their use. Beyond Roanoak are many isles full of fruits and other natural increases, with many towns along the side of the continent. Those isles lie two hundred miles in length, and between them and the main, a great long sea, in some places twenty, forty, or fifty miles broad, in others more, somewhere less. And in this sea are one hundred isles of divers bignesses, but to get into it, you have but three passages, and they very dangerous. Though this you see for most part be but the relations of savages, because it is the first, I thought it not amiss to remember them as they are written by them that returned and arrived in England about the midst of September the same year. This discovery was so welcome into England that it pleased Her Majesty to call this country of Wingandacoa, Virginia, by which name now you are to understand how it was planted, dissolved, reunited, and enlarged.

The performers of this voyage were these following:

Philip Amadas,	} Captains.	William Grenvill,	Benjamin Wood,	} of the	
Arthur Barlow,		John Wood,	Simon Ferdinando,		
		James Browewich,	Nicholas Peryman,		} company.
		Henry Greene,	John Hewes,		

Sir Richard Grenvill's Voyage to Virginia, for Sir Walter Raleigh, 1585.

THE 9th of April he departed from Plymouth, with seven sail: the chief men with him in command, were Mr. Ralph Layne, Mr. Thomas Candish, Mr. John Arundel, Mr. Stukley, Mr. Bremige, Mr. Vincent, Mr. Heryot and Mr. John Clarke. The

14th day we fell with the Canaries, and the 7th of May with Dominico in the West Indies; we landed at Portorico, after with much ado at Izabella on the north of Hispaniola, passing by many isles. Upon the 20th, we fell with the main of Florida, and were put in great danger upon Cape Fear. The 26th we anchored at Wocokon, where the Admiral had like to been cast away; presently we sent to Wingina, to Roanoak, and Mr. Arundel went to the main, with Manteo a savage, and that day to Crooton. The 11th the General victualled for eight days, with a selected company went to the main, and discovered the towns of Pomeiok, Aquascogoc, Secotan, and the great lake called Paquie. At Aquascogoc the Indians stole a silver cup, wherefore we burnt the town and spoiled their corn, so returned to our fleet at Tocokon. Whence we wayed for Hatorask, where we rested, and Granganumeo, King Wingina's brother, with Manteo, came aboard our Admiral, the Admiral went for Weapomeiok, and Mr. John Arundel for England. Our General in his way home took a rich laden ship of 300 tons, with which he arrived at Plymouth the 18th of September, 1585.

These were left under the command of Mr. Ralph Layne to inhabit the country, but they returned within a year.

Philip Amidas, Admiral	Mr. Kendall	Mr. Allen
Mr. Thomas Heryot	Mr. Gardiner	Mr. Michael Pollifon
Mr. Acton	Mr. Predeox	Mr. Thomas Bockner
Mr. Stafford	Mr. Rogers	Mr. James Mafon
Mr. Thomas Luddington	Mr. Harvy	Mr. David Salter
Mr. Marvyn	Mr. Snelling	Mr. James Skinner.
Captain Vaughan	Mr. Antony Ruffe	

With divers others, to the number of 108.

Touching the most remarkable things of the country, and our proceeding from the 17th of August 1585, till the 18th of June 1586, we made Roanoack our habitation. The utmost of our discovery southward was Secotan, as we esteemed 80 leagues from Roanoacke. The passage from thence was thought a broad sound within the main, being without kenning of land, yet full of flats and shoals that our pinnasse could not pass, and we had but one boat with four oars, that would carry but fifteen men with their provisions for seven days: so that because the winter approached we left those discoveries till a stronger supply. To the northward, our farthest was to a town of the Chesapeaks, from Roanoack 130 miles. The passage is very shallow and dangerous by reason of the breadth of the sound, and the little succour for a storm, but this territory being 15 miles from the shore, for pleasantness of seat, for temperature of climate, fertility of soil, and commodities of the sea, besides bears good woods, faxefras, walnuts, &c. is not to be excelled, by any other whatsoever.

There be fundry other kings they call Weroances as the Mangoacks, Trypaniks and Oppofians, which came to visit us.

To the north-west our farthest was Chawonock from Roanoack, 130 miles; our passage lieth through a broad sound, but all fresh water, and the channel navigable for a ship, but out of it full of shoals.

The towns by the way by the water, are Passaquenock the womens' town, Chepanoc, Weapomeiok; from Muscamunge we enter the river and jurisdiction of Chawonock, there it beginneth to straiten, and at Chawonock it is as Thames at Lambeth: betwixt them as we passed is goodly high land on the left hand, and there is a town called Ohanock,

Ohanock, where is a great corn field, it is subject to Chawonock, which is the greatest province upon the river, and the town itself can put seven hundred men into the field, besides the forces of the rest. The king is lame, but hath more understanding than all the rest.

The river of Moratoc is more famous than all the rest, and openeth into the sound of Weapomeiok, and where there is but a very small current in Chawonock, it hath so strong a current from the south-west, as we doubted how to row against it. Strange things they report of the head of this river, and of Moratoc itself, a principal town on it, and is thirty or forty days journey to the head. This lame king is called Menatonon. When I had him prisoner two days, he told me that three days journey in a canoe up the river Chawonock, then landing and going four days journey north-east, there is a king whose country lieth on the sea, but his best place of strength is an island in a bay environed with deep water, where he taketh that abundance of pearl, that not only his skins, and his nobles, but also his beds and houses are garnished therewith. This king was at Chawonock two years ago to trade with black pearl, his worst fort whereof I had a rope, but they were nought; but that king he sayeth hath store of white, and had traffick with white men, for whom he rescued them; he promised me guides to him, but advised me to go strong, for he was unwilling strangers should come in his country, for his country is populous and valiant men. If a supply had come in April, I resolved to have sent a small bark to the northward to have found it, whilst I with small boats and 200 men, would have gone to the head of the river Chawonock, with sufficient guides by land, insconing myself every two days, where I would leave garrisons for my retreat till I came to this bay.

Very near unto it is the river of Moratoc, directly from the west, the head of it springeth out of a main rock, which standeth so near the sea, that in storms the sea beats over it into this fresh spring, that of itself at the surf is a violent stream. I intended with two wherries and forty persons to have Menatonons soon for guide, to try this presently, till I could meet with some of the Moratocks, or Mangoaks, but hoping of getting more victuals from the savages, we as narrowly escaped starving in that discovery as ever men did.

For Pemissapan, who had changed his name of Wingina upon the death of his brother Granganameo, had given both the Chawonefts, and Mangoaks word of my purpose: also he told me the Chawonocks had assembled two or three thousand to assault me at Roanock, urging me daily to go against them, and them against us; a great assembly I found at my coming thither, which sudden approach did so dismay them, that we had the better of them; and this confederacy against us was procured by Pemissapan himself, our chief friend we trusted; he sent word also to the Moratocks and the Mangoaks, I came to invade them, that they all fled up into the high country, so that where I assured myself both of succour and provision, I found all abandoned. But being thus far on my journey 160 miles from home, and but victuals for two days, besides the casualties of cross winds, storms, and the savages treachery, though we intended no hurt to any: I gave my company to understand we were only drawn forth upon these vain hopes by the savages to bring us to confusion: a council we held, to go forward or return, but they all were absolutely resolved but three, that whilst there was but one pint of corn for a man, they would not leave the search of that river; for they had two mastiff dogs, which boiled with sassafras leaves (if the worst fell out) upon them, and the pottage they would live two days, which would bring them to the Sound, where they should find fish for two days more to pass it to Roanock, which two days they had

rather fast than go back a-foot till they had seen the Mangoaks either as friends or foes.

Though I did foresee the danger and misery, yet the desire I had to see the Mangoaks was, for that there is a province called Chaunis Temoatan, frequented by them and well known to all those countries, where is a mine of copper they call Waffador; they say they take it out of a river that falleth swiftly from high rocks in shallow water, in great bowls, covered with leather, leaving a part open to receive the metal, which by the change of the colour of the water where the spout falleth, they suddenly chop down, and have the bowl full, which they cast into the fire; it presently melteth, and doth yield in five parts at the first melting two parts metal for three of ore. The Mangoaks have such plenty of it, they beautify their houses with great plates thereof: this the savages report; and young Skiko the king of Chawonock's son, my prisoner, that had been prisoner among the Mangoaks, but never at Chaunis Temoatan, for he said that was twenty days journey over-land from the Mangoaks.

Menatonon also confirmed all this, and promised me guides to this metal country; by land to the Mangoaks is but one day's journey, but seven by water, which made me so willing to have met them for some assay of this metal: but when we came there we found no creature, only we might see where had been their fires. After our two days journey, and our victuals spent, in the evening we heard some call as we thought Manteo, who was with me in the boat; this made us glad; he made them a friendly answer, which they answered with a song, we thought for welcome, but he told us they came to fight. Presently they did let fly their arrows about the boat, but did no hurt, the other boat scouring the shore we landed: but they all were fled, and how to find them we knew not. So the next morning we returned to the mouth of the river, that cost us four days rowing up, and here our dogs' pottage stood us in good stead, for we had nothing else: the next day we fasted being wind-bound, and could not pass the Sound, but the day following we came to Chippanum, where the people were fled, but their wires afforded us fish: thus being near spent, the next day God brought us to Roanock. I conclude a good mine, or the South-sea will make this country quickly inhabited, and so for pleasure and profit comparable with any in the world: otherwise there will be nothing worth the fetching. Provided there be found a better harbour then yet there is, which must be northward if there be any. Mr. Vaughan no less hoped of the goodness of the mine, then Mr. Heriot that the river Moratock's head, either riseth by the Bay of Mexico, or very near the South Sea, or some part that openeth near the same, which cannot with that facility be done as from the Bay of Pearls, by insconcing four days journey to the Chawonocks, Mangoaks, and Moratocks, &c.

The Conspiracy of Pemissapan; the Discovery of it; and our Return for England with Francis Drake.

ENSENORE, a savage, father to Pemissapan, the best friend we had after the death of Granganimeo, when I was in those discoveries, could not prevail any thing with the King from destroying us, that all this time God had preserved, by his good counsel to the King to be friendly unto us. Pemissapan thinking as the brute was in this last journey we were slain and starved, began to blaspheme our God that would suffer it, and not defend us, so that old Ensenore had no more credit for us; for he began by all the devices he could to invade us. But in the beginning of this brute, when they saw us all return, the report false, and had Manteo, and three savages more

with us, how little we esteemed all the people we met, and feared neither hunger, killing, or any thing, and had brought their greatest king's son prisoner with us to Roanock, it a little assuaged all his devises, and brought Ensenore in respect again, that our God was good, and we their friends, and our foes should perish, for we could do them more hurt being dead, than living, and that being an hundred miles from them, shot, and struck them sick to death, and that when we die it is but for a time, then we return again. But that which wrought the most fear among them, was the handy-work of Almighty God. For certain days after my return, Menatonon sent messengers to me with pearl, and Okisco, King of Weopomeoke, to yield himself servant to the Queen of England. Okisco, with twenty-four of his principal men, came to Pemissapan, to acknowledge this duty and subjection, and would perform it. All which so changed the heart of Pemissapan, that upon the advice of Ensenore, when we were ready to famish they came and made us wires, and planted their fields they intended to abandon, (we not having one corn till the next harvest to sustain us.) This being done, our old friend Ensenore died the twentieth of April; then all our enemies wrought with Pemissapan to put in practice his devises, which he easily embraced, though they had planted corn by us, and at Dasamonpeack, two leagues from us: yet they got Okisco our tributary, to get seven or eight hundred, (and the Mandagoes, with the Chisapeans, should do the like,) to meet (as their custom is,) to solemnize the funeral of Ensenore: half of whom should lie hid, to cut off the stragglers seeking crabs and provision; the rest come out of the main upon the signal by fire. Twenty of the principal of Pemissapan's men had charge in the night to beset my house, put fire in the reeds that covered it, which might cause me run out so naked and amazed, they might without danger knock out my brains. The same order for Mr. Heriots, and the rest; for all should have been fired at an instant. In the mean time they should sell us nothing, and in the night spoil our wires, to make necessity disperse us; for if we were but ten together, a hundred of them would not meddle with us. So our famine increased; I was forced to send Captain Stafford to Croatan, with twenty, to feed himself, and see if he could espy any sail pass the coast; Mr. Predeox with ten, to Hatarask, upon the same occasion; and other small parties to the main to live upon roots and oysters.

Pemissapan sequestering himself, I should not importune him for victuals, and to draw his troops, found not the Chawonefts so forward as he expected, being a people more faithful and powerful, and desired our friendship, and was offended with him for raising such tales, and all his projects were revealed to me by Skico my prisoner; who, finding himself as well used by me as Pemissapan, told me all. These troubles caused me to send to Pemissapan, to put suspicion in his head, I was to go presently to Croatan to meet a fleet coming to me, though I knew no such matter; and that he would lend me men to fish and hunt. He sent me word he would come himself to Roanock, but delaying time eight days, that all his men were there to be assembled; not liking so much company, I resolved the next day to go visit him, but first to give them in the isle a canvisado, and at an instant to seize on all their canoes about the isle; but the town took the alarm before I meant it; for when I sent to take the canoes, he met one going from the shore, overthrew her, and cut off two savages heads; whereupon the cry arose, being by their spies perceived, for they kept as good watch over us, as we of them. Upon this they to their bows, and we to our arms; three or four of them at the first were slain, the rest fled into the woods. The next morning I went to Dasamonpeack, and sent Pemissapan word I was going to Croatan, and took him in my way

to complain Osocon would have stole my prisoner Skico. Hereupon he did abide my coming ; and being among eight of the principal, I gave the watch-word to my men, and immediately they had that they purposed for us ; himself being shot through with a pistol, fell down as dead, but presently started up and ran away from them all, till an Irish boy shot him over the buttocks, where they took him and cut off his head.

Seven days after Captain Stafforton sent to me, he descried twenty-three sail. The next day came to me himself, (of whom I must say this, from the first to the last, he neither spared labour or peril, by land or sea, fair weather or foul, to perform any serious service committed to him.) He brought me a letter from Sir Francis Drake, whose generous mind offered to supply all my defects, of shipping, boats, munition, victuals, cloaths, and men, to further this action ; and upon good consultation and deliberation, he appointed me a ship of seventy tons, with an hundred men, and four months victuals, two pinnaces, four small boats, with two sufficient masters, with sufficient gangs. All this being made ready for me, suddenly arose such a storm for four days, that had like to have driven the whole fleet on shore ; many of them were forced to the sea, whereof my ship so lately given me was one, with all my provision and company appointed.

Notwithstanding, the storm ceasing, the General appointed me a ship of one hundred and seventy tons, with all provisions as before, to carry me into England the next August, or when I had performed such discoveries as I thought fit. Yet they durst not undertake to bring her into the harbour, but she must ride in the road, leaving the care of the rest to myself, advising me to consider with my company what was fittest, and with my best speed return him answer.

Hereupon, calling my company together, who were all as privy of the General's offer as myself ; their whole request was, (in regard of all those former miseries, and no hope of the return of Sir Richard Grenvill,) and with a general consent, they desired me to urge him, we might all go with him for England in his fleet, for whose relief in that storm he had sustained more peril of wreck, than in all his honourable actions against his enemies. So with praises to God we set sail in June 1586, and arrived in Portsmouth the 27th of July the same year, leaving this remembrance to posterity.

To reason lend me thine attentive ears,
Exempt thyself from mind-distracting cares :
Lest that's here thus projected for thy good,
By thee rejected be, ere understood.

Written by Mr. RALPH LAYNE, Governor.

The Observations of Mr. Thomas Heriot in this Voyage, for Merchandise and Viſuals.

WHAT before is writ is also confirmed by that learned mathematician Mr. Thomas Heriot, with them in the country, whose particular relation of all the beasts, birds, fishes, fowls, fruits, and roots, and how they may be useful ; because I have writ it before, for the most part, in the discourse of Captain Amidas, and Captain Layne, except silk-grafs, worm-silk, flax like hemp, allum, wapeith, or terra figillata, tar, rosin, and turpentine, civet-cats, iron ore, copper that held silver, coprose and pearl : let those briefs suffice, because I would not trouble you with one thing twice.

Dyes.]

Dyes.] For dyes, shumack, the herb wasebur, little roots called chapacor, and the bark of a tree, called by the inhabitants tangomockonominge, which are for divers sorts of red.

What more then is related is an herb, in Dutch called melden, described like an orange, growing four feet high; the seed will make good broth, and the stalk, burnt to ashes, makes a kind of salt; other salt they know not, and we used of it for pot-herbs. Of their tobacco we found plenty, which they esteem their chief phyfic.

Ground-nuts, tiswaw we call China roots; they grow in clusters, and bring forth a bryer stalk, but the leaf is far unlike, which will climb up to the top of the highest tree; the use known is to cut it in small pieces, then stamp and strain it with water, and boiled makes a jelly good to eat. Cassavia grows in marshes, which the Indians often use for bread and broth. Habascon is like a parsnip, nought of itself, except compounded; and their leeks like those in England.

Sequenumener, a kind of berry like capers, and three kinds of berries like acorns, called sagatamenor, ofamenor, and pummuckoner.

Saquenuckot and maquowoc, two kind of beasts, greater than conies, and very good meat; in some places, such plenty of grey conies, like hares, that all the people make them mantles of their skins. I have the names of 28, several sorts that are dispersed in the country; of which, 12 kinds we have discovered, and good to eat; but the savages sometimes kill a lion and eat him.

There is plenty of sturgeon in February, March, April, and May; all herrings in abundance; some such as ours, but the most part of 18, 20, or 24 inches long, and more. Trouts, porpoises, rays, mullets, old wives, plaice, tortoises, both by sea and land; crabs, oysters, muscles, scalops, perriwinkles, crevices, secanank: we have the pictures of twelve sorts more, but their names we know not.

Turkies, stock-doves, partridges, cranes, herons, swans, geese, parrots, falcons, merlins; I have the names in their language, of eighty-six several sorts. Their woods are such as ours in England for the most part, except rakeock, a great sweet tree, whereof they make their canoes; and ascopo, a kind of tree like laurel and sassafras.

Their Natures and Manners.] Their clothing, towns, houses, wars, arts, tools, handicrafts, and educations, are much like them in that part of Virginia we now inhabit: which at large you may read in the description thereof; but the relation of their religion is strange, as this author reporteth.

Some religion they have, which, although it be far from the truth, yet being as it is, there is hope it may be easier reformed. They believe there are many gods, which they call mantoac, but of different sorts and degrees. Also that there is one chief god, that hath been from all eternity, who, as they say, when he purposed first to make the world, made first other gods of a principal order, to be as instruments to be used in the creation and government to follow; and after, the sun, moon, and stars, as petty gods; and the instruments of the other order more principal. First, they say, were made waters, out of which, by the gods, were made all diversity of creatures that are visible or invisible.

For mankind, they say, a woman was made first, which by the working of one of the gods, conceived and brought forth children; and so they had their beginning, but how many years or ages since, they know not, having no records, but only tradition from father to son.

They think that all the gods are of human shape, and therefore represent them by images,

images, in the forms of men, which they call kewasowok ; one alone is called kewafa ; them they place in their temples, where they worship, pray, sing, and make many offerings. The common sort think them also gods.

They believe the immortality of the soul, when life departing from the body, according to the good or bad works it hath done, it is carried up to the tabernacles of the gods, to perpetual happiness, or to popoguffo, a great pit, which they think to be at the furthest parts of the world, where the sun sets, and there burn continually.

To confirm this, they told me of two men that had been lately dead, and revived again ; the one happened but few years before our coming into the country, of a bad man, which being dead and buried, the next day the earth over him being seen to move, was taken up, who told them his soul was very near entering into popoguffo, had not one of the gods saved him, and gave him leave to return again, to teach his friends what they should do to avoid such torment. The other happened the same year we were there, but sixty miles from us, which they told me for news ; that one being dead, buried, and taken up, as the first, shewed, that although his body had lain dead in the grave, yet his soul lived, and had travelled far in a long broad way, on both sides whereof grew more sweet, fair, and delicate trees and fruits, than ever he had seen before ; at length, he came to most brave and fair houses, near which he met his father, that was dead long ago, who gave him charge to go back, to shew his friends what good there was to do, to enjoy the pleasures of that place ; which when he had done, he should come again.

What subtlety soever be in the weroances and priests, this opinion worketh so much in the common sort, that they have great respect to their governors ; and as great care to avoid torment after death, and to enjoy bliss. Yet they have divers sorts of punishments, according to the offence, according to the greatness of the fact. And this is the sum of their religion, which I learned by having special familiarity with their priests, wherein they were not so sure grounded, nor gave such credit, but through conversing with us, they were brought into great doubts of their own, and no small admiration of ours ; of which many desired to learn more than we had means, for want of utterance in their language, to express.

Most things they saw with us, as mathematical instruments, sea-compasses, the virtue of the loadstone, perspective glasses, burning glasses ; clocks to go of themselves ; books, writing, guns, and such like, so far exceeded their capacities, that they thought they were rather the works of god than men ; or at least the gods had taught us how to make them, which loved us so much better than them ; and caused many of them to give credit to what we spoke concerning our God. In all places where I came, I did my best to make his immortal glory known. And I told them, although the bible I shewed them contained all, yet of itself it was not of any such virtue as I thought they did conceive. Notwithstanding many would be glad to touch it, to kiss, and embrace it, to hold it to their breasts, and heads, and stroke all their body over with it.

The King Wingina where we dwelt, would oft be with us at prayer. Twice he was exceeding sick and like to die. And doubting of any help from his priests, thinking he was in such danger for offending us and our God, sent for some of us to pray, and be a means to our God, he might live with him after death. And so did many others in the like case. One other strange accident (leaving others) will I mention before I end, which moved the whole country that either knew or heard of us, to have us in wonderful admiration.

There was no town where they had practised any villainy against us (we leaving it unpunished,

unpunished, because we fought by all possible means to win them by gentleness) but within a few days after our departure, they began to die; in some towns twenty, in some forty, in some sixty, and in one an hundred and twenty, which was very many in respect of their numbers. And this happened in no place (we could learn) where we had been, but where they had used some practice to betray us. And this disease was so strange, they neither knew what it was, nor how to cure it; nor had they known the like time out of mind; a thing specially observed by us, as also by themselves, in so much that some of them who were our friends, especially Wingina, had observed such effects in four or five towns, that they were persuaded it was the work of God through our means: and that we by him might kill and slay whom we would, without weapons, and not come near them. And thereupon, when they had any understanding that any of their enemies abused us in our journies, they would intreat us, we would be a means to our God, that they, as the others that had dealt ill with us, might die in like sort: although we shewed them their requests were ungodly, and that our God would not subject himself to any such requests of men, but all things as he pleased came to pass: and that we to shew ourselves his true servants, ought rather to pray for the contrary: yet because the effect fell out so suddenly after, according to their desires, they thought it came to pass by our means, and would come give us thanks in their manner, that though we satisfied them not in words, yet in deeds we had fulfilled their desires.

This marvellous accident in all the country wrought so strange opinions of us, that they could not tell whether to think us gods or men. And the rather that all the space of their sickness, there was no man of ours known to die, or much sick. They noted also we had no women, nor cared for any of theirs: some therefore thought we were not born of women, and therefore not mortal, but that we were men of an old generation many years past, and risen again from immortality. Some would prophesy there were more of our generation yet to come, to kill theirs and take their places. Those that were to come after us they imagined to be in the air, yet invisible and without bodies: and that they by our intreaties, for love of us, did make the people die as they did, by shooting invisible bullets into them.

To confirm this, their physicians to excuse their ignorance in curing the disease, would make the simple people believe, that the strings of blood they sucked out of the sick bodies, were the strings wherein the invisible bullets were tied, and cast. Some thought we shot them ourselves from the place where we dwelt, and killed the people that had offended us, as we listed, how far distant soever. And others said it was the special work of God for our sakes, as we had cause in some sort to think no less, whatsoever some do, or may imagine to the contrary; especially some astrologers by the eclipse of the sun we saw that year before our voyage, and by a comet which began to appear but a few days before the sickness began: but to exclude them from being the special causes of so special an accident, there are farther reasons than I think fit to present or allege.

These their opinions I have set down, that you may see there is hope to embrace the truth, and honor, obey, fear and love us, by good dealing and government: though some of our company towards the latter end, before we came away with Sir Francis Drake, shewed themselves too furious in slaying some of the people in some towns, upon causes that on our part might have been borne with more mildness; notwithstanding they justly had deserved it. The best nevertheless in this, as in all actions besides, is to be endeavoured and hoped; and of the worst that may happen, notice
to

to be taken with consideration ; and as much as may be eschewed ; the better to allure them hereafter to civility and Christianity. Thus you may see

How

Nature herself delights herself in fundry Instruments,
That fundry things be done to deck the earth with Ornaments ;
Nor suffers she her servants all should run one race,
But wills the walk of every one frame in a divers pace ;
That divers ways and divers works, the world might better grace.

Written by THOMAS HERIOT, one of the voyage.

How Sir Richard Grenvill went to relieve them.

IN the year of our Lord 1586, Sir Walter Raleigh and his associates prepared a ship of a hundred tons, freighted plentifully of all things necessary ; but before they set sail from England it was Easter. And arriving at Hatorask, they after some time spent in seeking the colony up in the country, and not finding them, returned with all the provision again to England.

About fourteen or fifteen days after, Sir Richard Grenvill, accompanied with three ships well appointed, arrived there : who not finding the aforesaid ship according to his expectation, nor hearing any news of the colony there seated, and left by him as is said 1585, travelling up and down to seek them, but when he could hear no news of them, and found their habitation abandoned, unwilling to lose the possession of the country, after good deliberation he landed fifty men in the isle of Roanoak, plentifully furnished with all manner of provision for two years, and so returned for England.

Where many began strangely to descant of those cross beginnings, and him ; which caused me to remember an old saying of Euripides.

Who broacheth ought that's new, to fools untaught,
Himself shall judged be unwise, and good for nought.

Three Ships more sent to relieve them by Mr. White.

WE went the old course by the West Indies, and Simon Ferdinando our continual pilot mistaking Virginia for Cape Fear, we failed not much to have been cast away, upon the conceit of our all-knowing Ferdinando, had it not been prevented by the vigilance of Captain Stafford. We came to Hatorask the 22d of July, and with forty of our best men, intending at Roanoack to find the fifty men left by Sir Richard Grenvill. But we found nothing but the bones of a man, and where the plantation had been the houses unhurt, but overgrown with weeds, and the fort defaced, which much perplexed us.

By the history it seems Simon Ferdinando did what he could to bring this voyage to confusion ; but yet they all arrived at Hatorask. They repaired the old houses at Roanoack, and Mr. George How, one of the council, straggling abroad, was slain by the savages. Not long after Mr. Stafford, with twenty men, went to Croatan with Manteo, whose friends dwelt there : one of whom we thought to have some news of our fifty men. They at first made shew to fight, but when they heard Manteo, they

threw away their arms, and were friends, and desired there might be a token given to be known by, lest we might hurt them by misprision, as the year before one had been by Mr. Layne, that was ever their friend, and there present yet lame.

The next day we had conference with them concerning the people of Secotan, Aquascogoc, and Pomeiok, willing them of Croatan to see if they would accept our friendship, and renew our old acquaintance: which they willingly embraced, and promised to bring their King and governors to Roanoack, to confirm it. We also understood that Mr. Howe was slain by the men of Wingina, of Daffamonpeak: and by them of Roanoack, that the fifty men left by Sir Richard Grenvill, were suddenly set upon by three hundred of Secotan, Aquascogoc, and Daffamonpeak. First they intruded themselves among eleven of them by friendship, one they slew, the rest retiring to their houses, they set them on fire, that our men with what came next to hand were forced to make their passage among them; where one of them was shot in the mouth, and presently died, and a savage slain by him. On both sides more were hurt; but our men retiring to the water side, got their boat, and ere they had rowed a quarter of a mile towards Hatorask, they took up four of their fellows, gathering crabs and oysters: at last they landed on a little isle by Hatorask, where they remained awhile, but after departed they knew not whither. So taking our leaves of the Croatans, we came to our fleet at Hatorask.

The governor having long expected the King and governors of Pomeiok, Secotan, Aquascogoc, and Daffamonpeak, and the seven days expired, and no news of them, being also informed by those of Croatan, that they of Daffamonpeak slew Mr. Howe, and were at the driving our men from Roanoack, he thought no longer to defer the revenge. Wherefore about midnight, with Captain Stafford, and twenty-four men, whereof Manteo was one, for our guide, (that behaved himself towards us as a most faithful Englishman) he set forward.

The next day by break of day we landed, and got beyond their houses, where seeing them sit by the fire we assaulted them. The miserable souls amazed fled into the reeds, where one was shot through, and we thought to have been fully revenged, but we were deceived, for they were our friends come from Croatan to gather their corn, because they understood our enemies were fled after the death of Mr. Howe, and left all behind them for the birds. But they had like to have paid too dear for it, had we not chanced upon a Weroances wife, with a child at her back, and a savage that knew Captain Stafford, that ran to him, calling him by his name. Being thus disappointed of our purpose, we gathered the fruit we found ripe, left the rest unspoiled, and took Menatonon his wife, with her child, and the rest with us to Roanoack. Though this mistake grieved Manteo, yet he imputed it to their own folly, because they had not kept promise to come to the governor at the day appointed. The 13th of August our savage Manteo was christened, and called Lord of Daffamonpeak, in reward of his faithfulness. And the 18th, Ellinor the governor's daughter, and wife to Ananias Dare, was delivered of a daughter in Roanoack; which being the first Christian there born, was called Virginia.

Our ships being ready to depart, such a storm arose, as the admiral was forced to cut her cables: and it was six days ere she could recover the shore, that made us doubt she had been lost, because the most of her best men were on shore. At this time controversies did grow betwixt our governor and the assistants, about choosing one of them twelve to go as factor for them all to England; for all refused save one, whom all men thought most insufficient: the conclusion was by a general consent, they would have the governor go himself, for that they thought none would so truly procure their supplies

as he. Which, though he did what he could to excuse it, yet their importunity would not cease till he undertook it, and had it under all their hands how unwilling he was, but that necessity and reason did doubly constrain him. At their setting sail for England, weighing anchor, twelve of the men in the fly-boat were thrown from the capstern, by the breaking of a bar, and most of them so hurt that some never recovered it. The second time they had the like fortune, being but fifteen, they cut the cable and kept company with their admiral to Flowres and Coruos; the admiral stayed there looking for purchase: but the fly-boats men grew so weak they were driven to Smerwick in the west of Ireland. The governor went for England; and Simon Ferdinando with much ado at last arrived at Portsmouth 1587.

The names of those landed in this plantation were,

John White, Governor,

Christopher Couper,

Dionis Harvie,

Roger Bayley,

Thomas Stevens,

Roger Prat,

Ananias Dare,

John Samson,

George How,

Simon Ferdinando,

Thomas Smith,

Anthony Cage.

With divers others to the number of about 115.

The Fifth Voyage to Virginia; undertaken by Mr. John White, 1589.

THE 20th of March three ships went from Plymouth, and passed betwixt Barbary and Mogadoro to Dominico in the West Indies. After we had done some exploits in those parts, the 3d of August we fell with the low sandy isles westward of Wokokon. But by reason of ill weather it was the 11th ere we could anchor there; and on the 12th we came to Croatan, where is a great breach in 35° and a half, in the north-east point of the isle. The 15th we came to Hatorask in 36° and a terse, at four fathoms, three leagues from shore, where we might perceive a smoke at the place where I left the colony, 1587. The next morning Captain Cook, Captain Spicer, and their companies, with two boats left our ships, and discharged some ordnance to give them notice of our coming; but when we came there, we found no man nor sign of any that had been there lately, and so returned to our boats. The next morning we prepared again for Roanoack. Captain Spicer had then sent his boat ashore for water, so it was ten of the clock ere we put from the ships, which rode two miles from the shore. The admiral's boat being a mile before the other as she passed the bar, a sea broke into the boat and filled her half full of water, but by God's good will, and the careful steerage of Captain Cook, though our provisions were much wet, we safe escaped; the wind blew hard at north-east, which caused so great a current and a breach upon the bar; Captain Spicer passed half over, but by the indiscreet steering of Ralph Skinner, their boat was overfet, the men that could catch hold hung about her, the next sea cast her on ground, where some let go their hold to wade to shore, but the sea beat them down. The boat thus tossed up and down Captain Spicer and Skinner hung there till they were drowned, but four that could swim a little, kept themselves in deeper water, were saved by the means of Captain Cook, that presently upon the oversetting of their boat, shipped himself to save what he could. Thus of eleven, seven of the chiefest were drowned. This so discomfited all the sailors, we had much to do to get them any more to seek further for the planters, but by their captain's forwardness at last they fitted themselves again for Hatorask in two boats, with nineteen persons. It was late ere we arrived, but seeing a fire through the woods, we sounded a trumpet, but no answer could we hear. The next morning we went to it, but could see nothing but the grass, and

and some rotten trees burning. We went up and down the isle, and at last found three fair Roman letters carved c. r. o. which presently we knew to signify the place where I should find them, according to a secret note between them and me, which was to write the name of the place they would be in upon some tree, door, or post: and if they had been in any distress to signify it by making a cross over it. For at my departure they intended to go fifty miles into the main. But we found no sign of distress; then we went to a place where they were left in sundry houses, but we found them all taken down, and the place strongly inclosed with a high palizado, very fortlike; and in one of the chief posts carved in fair capital letters CROATAN, without any sign of distress, and many bars of iron, two pigs of lead, four fowlers, iron shot, and such like heavy things thrown here and there, overgrown with grass and weeds. We went by the shore to seek for their boats but could find none, nor any of the ordnance I left them. At last some of the sailors found divers chests had been hidden and digged up again, and much of the goods spoiled, and scattered up and down, which, when I saw, I knew three of them to be my own; but books, pictures, and all things else were spoiled. Though it much grieved me, yet it did much comfort me that I did know they were at Croatan; so we returned to our ships, but had like to have been cast away by a great storm that continued all that night.

The next morning we weighed anchor for Croatan, having the anchor a-peak, the cable broke, by the means whereof we lost another: letting fall the third, the ship yet went so fast a drift, we failed not much there to have split. But God bringing us into deeper water, considering we had but one anchor, and our provision near spent, we resolved to go forthwith to St. John's Isle, Hispaniola, or Trinidad, to refresh ourselves and seek for purchase that winter, and the next spring come again to seek our countrymen. But our vice-admiral would not, but went directly for England, and we our course for Trinidad. But within two days after, the wind changing, we were constrained for the Western Isles to refresh ourselves, where we met with many of the Queen's ships, our own consort, and divers others, the 23d of September 1590. And thus we left seeking our colony, that was never any of them found, nor seen to this day, 1622. And this was the conclusion of this plantation, after so much time, labour, and charge consumed. Whereby we see,

Not all at once, nor all alike, nor ever hath it been,
That God doth offer and confer his blessings upon men.

Written by Mr. JOHN WHITE.

A brief Relation of the Description of Elizabeth's Isle, and some others towards the North Part of Virginia; and what else they discovered in the Year 1602; by Captain Bartholomew Gosnoll, and Captain Bartholomew Gilbert, and divers other Gentlemen their Associates.

ALL hopes of Virginia thus abandoned, it lay dead and obscured from 1590 till this year 1602, that Captain Gosnoll with thirty-two and himself in a small bark, set sail from Dartmouth upon the 26th of March. Though the wind favoured us not at the first, but forced us as far southward as the Azores, which was not much out of our way; we ran directly west from thence, whereby we made our journey shorter than heretofore by five hundred leagues: the weakness of our ship, the badness of our sailors, and our ignorance of the coast, caused us carry but a low sail, that made our passage longer than we expected.

On Friday the 11th of May, we made land, it was somewhat low, where appeared certain hummocks or hills in it: the shore white sand, but very rocky, yet overgrown with fair trees. Coming to an anchor, eight Indians in a bask shallop, with mast and sail came boldly aboard us. It seemed by their signs and such things as they had, some Biskiners had fished there, being about the latitude of 43. But the harbour, being naught, and doubting the weather, we went not ashore, but weighed and stood to the southward into the sea. The next morning we found ourselves imbayed with a mighty head-land: within a league of the shore we anchored, and Captain Gosnoll, myself, and three others, went to it in our boat, being a white sand and a bold coast. Though the weather was hot, we marched to the highest hills we could see, where we perceived this head-land part of the main, near environed with islands. As we were returning to our ship, a good proper lusty young man came to us, with whom we had but small conference, and so we left him. Here in five or six hours we took more cod than we knew what to do with, which made us persuade ourselves there might be found a good fishing in March, April, and May.

At length we came among these fair isles, some a league, two, three, five, or six from the main; by one of them we anchored. We found it four miles in compass, without house or inhabitant. In it is a lake near a mile in circuit, the rest overgrown with trees, which, so well as the bushes, were so overgrown with vines, we could scarce pass them. And by the blossoms we might perceive there would be plenty of strawberries, raspises, gooseberries, and divers other fruits: besides, deer and other beasts we saw, and cranes, hems, with divers other sorts of fowl, which made us call it Martha's Vineyard.

The rest of the isles are replenished with such like, very rocky, and much tinctured stone-like mineral. Though we met many Indians, yet we could not see their habitations: they gave us fish, tobacco, and such things as they had. But the next isle we arrived at was but two leagues from the main, and sixteen miles about, environed so with creeks and coves, it seemed like many isles linked together by small passages like bridges. In it is many places of plain grass, and such other fruits and berries as before were mentioned. In mid May we did sow wheat, barley, oats, and peas, which in fourteen days sprung up nine inches. The soil is fat and lusty, the crust thereof grey, a foot or less in depth. It is full of high timbered oaks, their leaves thrice so broad as ours: cedar straight and tall, beech, holly, walnut, hazel, cherry-trees like ours, but the stalk beareth the blossom or fruit thereof like a cluster of grapes, forty or fifty in a bunch. There is a tree of orange colour, whose bark in the filing is as smooth as velvet. There is a lake of fresh water three miles in compass, in the midst an isle containing an acre or thereabout, overgrown with wood: here are many tortoises, and abundance of all sorts of fowls, whose young ones we took and eat at our pleasure. Ground nuts as big as eggs, as good as potatoes, and forty on a string, not two inches under ground. All sorts of shell-fish, as scalops, mussels, cockles, crabs, lobsters, welks, oysters, exceeding good and very great; but not to cloy you with particulars, what God and nature hath bestowed on those places, I refer you to the author's own writing at large. We called this isle Elizabeth's Isle, from whence we went right over to the main, where we stood awhile as ravished at the beauty and delicacy of the sweetness, besides divers clear lakes, whereof we saw no end, and meadows very large and full of green grass, &c.

Here we espied seven savages, at first they expressed some fear, but by our courteous usage of them, they followed us to the neck of land, which we thought had been severed from the main, but we found it otherwise. Here we imagined was a river, but because the day was far spent, we left to discover it till better leisure. But of good harbours, there is no doubt, considering the land is all rocky and broken lands. The

next day we determined to fortify ourselves in the isle in the lake. Three weeks we spent in building us there a house. But the second day after our coming from the main, eleven canoes with near fifty savages, came towards us. Being unwilling they should see our building, we went to, and exchanged with them knives, hatchets, beads, bells, and such trifles, for some beavers, lizards, martins, foxes, wild-cat skins, and such like. We saw them have much red copper, whereof they make chains, collars, and drinking cups, which they so little esteemed they would give us for small toys, and signified unto us they had it out of the earth in the main: three days they stayed with us, but every night retired two or three miles from us: after, with many signs of love and friendship, they departed, seven of them staying behind, that did help us to dig and carry sassafras, and do any thing they could, being of a comely proportion, and the best condition of any savages we had yet encountered. They have no beards but counterfeits, as they did think ours also was, for which they would have changed with some of our men that had great beards. Some of the baser sort would steal, but the better sort we found very civil and just. We saw but three of their women, and they were but of mean stature, attired in skins like the men, but fat and well favoured. The wholesomeness and temperature of this climate, doth not only argue the people to be answerable to this description, but also of a perfect constitution of body, active, strong, healthful, and very witty, as the sundry toys by them so cunningly wrought may well testify. For ourselves, we found ourselves rather increase in health and strength than otherwise, for all our toil, bad diet, and lodging, yet not one of us was touched with any sickness. Twelve intended here awhile to have stayed, but upon better consideration, how meanly we were provided, we left this island (with as many true sorrowful eyes as were before desirous to see it) the 18th of June, and arrived at Exmouth the 23d of July.

But yet man's mind doth such itself explay,
As God's great will doth frame it every way.

Such thoughts men have, on earth that do but live,
As men may crave, but God doth only give.

Written by JOHN BRIERTON, one of the voyage.

A Voyage of Captain Martin Pring, with two Barks from Bristow, for the North Part of Virginia, 1603.

BY the inducements and persuasions of Mr. Richard Hackluite, Mr. John Whitson being mayor, with his brethren the aldermen, and most of the merchants of the city of Bristow, raised a stock of one thousand pounds, to furnish out two barks, the one of fifty tons, with thirty men and boys, the other twenty-six tons, with thirteen men and boys, having Martin Pring an understanding gentleman, and a sufficient mariner, for captain, and Robert Salterne, his assistant, who had been with Captain Gosnoll there the year before for pilot. Though they were much crossed by contrary winds upon the coast of England, and the death of that ever most memorable miracle of the world, our most dear sovereign Lady and Queen Elizabeth: yet at last they passed by the Western Isles, and about the 7th of June, fell upon the north part of Virginia, about the degrees of 43, where they found plenty of most sorts of fish, and saw a high country full of great woods of sundry sorts. As they ranged the coast at a place they named Whitfun Bay, they were kindly used by the natives that came to them in troops of tens, twenties, and thirties, and sometimes more. But because in this voyage for most part they followed!

followed the course of Captain Gosnoll, and have made no relation but to the same effect he writ before, we will thus conclude :

Lay hands unto this work with all thy wit,
But pray that God would speed and perfect it.

ROBERT SALTERNE.

A Relation of a Discovery towards the Northward of Virginia, by Captain George Weymouth, 1605 ; employed thither by the Right Honourable Thomas Arundel, Baron of Warder, in the Reign of our most royal King James.

UPON Tuesday the 5th of March we set sail from Ratcliff, but by contrary winds we were forced into Dartmouth till the last of this month, then with twenty-nine as good seamen, and all necessary provisions as could possibly be gotten, we put to sea, and the 24th of April fell with Flowres and Corvos. We intended, as we were directed, towards the southward of 39° ; but the winds so crossed us we fell more northwards, about $41^{\circ} 20'$: we sounded at one hundred fathom, and by that we had run six leagues, we had but five, yet saw no land. From the main-top we descried a whitish sandy cliff, west-north-west, some six leagues from us ; but ere we had run two leagues further, we found many shoals and breaches, sometimes in four fathom, and the next through fifteen or eighteen. Being thus embayed among those shoals, we were constrained to put back again, which we did with no small danger, though both the wind and weather were as fair as we could desire. Thus we parted from the land, which we had not before so much desired, and at the first sight rejoiced, as now we all joyfully praised God that he had delivered us from so imminent danger. Here we found excellent cod, and saw many whales, as we had done two or three days before. Being thus constrained to put to sea, the want of wood and water caused us take the best advantage of the wind, to fall with the shore wheresoever ; but we found our sea-cards most directly false. The 17th of May we made the land again, but it blew so hard we durst not approach it. The next day it appeared to us a main high land, but we found it an island of six miles in compass : within a league of it we came to an anchor, and went on shore for wood and water, of which we found sufficient, the water gushing forth down the rocky cliffs in many places, which are all overgrown with fir, birch, beech, and oak, as the verge is with gooseberries, strawberries, wild peas, and rose bushes, and much fowl of divers sorts that breed among the rocks. Here, as in all places else where we came, we found cod enough.

From hence we might discern the main land and very high mountains ; the next day because we rode too open to the sea, we weighed, and came to the isles adjoining to the main, among which we found an excellent road, defended from all winds, for ships of any burthen, in six, seven, eight, nine, or ten fathom, upon a clay ooze. This was upon Whit-Sunday, wherefore we called it Pentecost Harbour. Here I cannot omit, for foolish fear of imputation of flattery, the painful industry of our captain, who, as at sea, he was always most careful and vigilant, so at land he refused no pains ; but his labour was ever as much, or rather more, than any man's ; which not only encouraged others with better content, but also effected much with great expedition. We digged a garden the 22d of May, where, among our garden seeds, we sowed peas and barley, which in sixteen days grew up eight inches, although this was but the crust of the ground, and much inferior to the mould we after found in the main.

After we had taken order for all our necessary businesses, we marched through two of these isles. The biggest was four or five miles in compass ; we found here all sorts

of ordinary trees, besides vines, currants, spruce, yew, angelica, and divers gums, infomuch many of our company wished themselves settled here. Upon the 30th our captain with thirteen went to discover the main: we in the ship espied three canoes that came towards the ship, which, after they had well viewed, one of them came aboard with three men, and by our good usage of them, not long after the rest. Two days we had their companies; in all respects they are but like them at Elizabeth's Isles, therefore this may suffice for their description. In this time our captain had discovered a fair river, trending into the main forty miles, and returned back to bring in the ship. The savages also kept their words, and brought us forty beaver, otter, and sable skins, for the value of five shillings in knives, glasses, combs, and such toys, and thus we used them so kindly as we could, because we intended to inhabit in their country, they lying aboard with us, and we ashore with them; but it was but as changing man for man as hostages, and in this manner many times we had their companies.

At last they desired our captain to go with them to the main to trade with their Bafhabes, which is their chief lord, which we did, our boat well manned with fourteen, yet would they row faster with three oars in their canoes than we with eight; but when we saw our old acquaintance would not stay aboard us as before for hostage, but did what they could to draw us into a narrow cirque, we exchanged one Owen Griffin with them for a young fellow of theirs, that he might see if he could discover any treachery, as he did, for he found there assembled two hundred and eighty-three savages with bows and arrows, but not any thing at all to trade as they pretended. These things considered, we conceited them to be but as all savages ever had been, kind till they found opportunity to do mischief. Wherefore we determined to take some of them, before they should suspect we had discovered their plot, lest they should absent themselves from us; so the first that ever after came into the ship were three, which we kept, and two we took on shore with much ado, with two canoes, their bows and arrows.

Some time we spent in founding all the isles, channels, and inlets thereabouts, and we found four several ways a ship might be brought into this bay. In the interim there came two canoes more boldly aboard us, signifying we should bring our ship to the place where he dwelt to trade. We excused ourselves why we could not, but used them kindly, yet got them away with all the speed we could, that they should not be perceived by them in the hole; then we went up the river twenty-six miles, of which I had rather not write, than by my relation detract from it. It is in breadth a mile, near forty miles, and a channel of six, seven, eight, nine, or ten fathoms; and on both sides, every half-mile, gallant coves, to contain in many of them one hundred sail, where they may lie on oze, without cable or anchor, only moored with a hawser, and it floweth eighteen feet, that you may make, dock, or careen ships with much facility. Besides, the land is most rich, trending all along on both sides in an equal plain, neither rocky nor mountainous, but verged with a green border of grafs, doth make tender to the beholder her pleasant fertility, if by cleansing away the woods she were converted into meadow.

The woods are great and tall, such as are spoken of in the islands, and well watered with many fresh springs. Our men that had seen Oronoque, so famous in the world's ears, Reogrande, Loyer, and Slion report, though they be great and goodly rivers, yet are not comparable to it. Leaving our ship we went higher, till we were seven miles higher than the salt water flowed; we marched towards the mountains we had seen, but the weather was so hot, and our labour so great, as our captain was contented to return. After we had erected a cross, we left this fair land and river, in
which

which the higher we went the better we liked it, and returned to our ship. By the way we met a canoe, that much desired one of our men to go up to their Bahabes; but we knew their intents, and so turned them off; and though we had both time and provision to have discovered much more, and might have found peradventure good trade; yet because our company was but small, we would not hazard so hopeful a business as this was, either for our private or particular ends, being more regardful of a public good, and promulgating God's holy church by planting Christianity, which was the intent of our adventurers so well as ours. Returning by the isles in the entry of the Sound, we called them St. George's Isles, and because on Sunday we set out of England, on Sunday also the 16th of June we departed hence. When we had run thirty leagues, we had forty fathoms, then seventy, then one hundred. After two or three watches more we were in twenty-four fathoms, where we took so much cod as we did not know what to do with: and the 18th of July came to Dartmouth, and all our men as well, God be thanked, as when they went forth.

Thus may you see,

God hath not all his gifts bestowed on all or any one,
Words sweetest, and wits sharpest, courage, strength of bone;
All rarities of mind and parts do all concur in none.

Written by JAMES ROSIER, one of the voyage.

BOOK II.

The Sixth Voyage 1606, to another Part of Virginia, where now are planted our English Colonies, (whom God increase and preserve,) discovered and described by Captain John Smith, sometime Governor of the Country.

BY these former relations you may see what inconveniences still crossed those good intents, and how great a matter it was all this time to find but a harbour, although there be so many. But this Virginia is a country in America, between the degrees of 34 and 45 of the north latitude. The bounds thereof on the east side are the great ocean; on the south lieth Florida; on the north, Nova Francia; as for the west thereof, the limits are unknown. Of all this country we purpose not to speak, but only of that part which was planted by the Englishmen, in the year of our Lord 1606, and this is under the degrees 37, 38, and 39. The temperature of this country doth agree well with English constitutions, being once seasoned to the country; which appeared by this, that though by many occasions our people fell sick, yet did they recover by very small means, and continued in health, though there were other great causes, not only to have made them sick, but even to end their days, &c.

The summer is hot as in Spain, the winter cold as in France or England. The heat of summer is in June, July, and August, but commonly the cool breezes assuage the vehemency of the heat. The chief of winter is half December, January, February, and half March. The cold is extreme sharp; but here the proverb is true, that no extreme long continueth.

In the year 1607, was an extraordinary frost in most of Europe, and this frost was found as extreme in Virginia. But the next year, for 8 or 10 days of ill weather, other 14 days would be as summer.

The winds here are variable, but the like thunder and lightning to purify the air, I have seldom either seen or heard in Europe. From the south-west came the greatest gusts,

gusts, with thunder and heat. The north-west wind is commonly cool, and bringeth fair weather with it. From the north is the greatest cold; and from the east and south-east, as from the Bermudas, fogs and rains.

Sometimes there are great droughts, other times much rain, yet great necessity of neither, by reason we see not but that all the rarity of needful fruits in Europe may be there in great plenty, by the industry of men, as appeareth by those we there planted.

There is but one entrance by sea into this country, and that is at the mouth of a very goodly bay, eighteen or twenty miles broad. The cape on the south is called Cape Henry, in honour of our most noble Prince. The land, white hilly sands, like unto the Downs, and all along the shores great plenty of pines and firs.

The north cape is called Cape Charles, in honour of the worthy Duke of York. The isles before it, Smith's Isles, by the name of the discoverer. Within is a country that may have the prerogative over the most pleasant places known, for large and pleasant navigable rivers; heaven and earth never agreed better to frame a place for man's habitation, were it fully manured and inhabited by industrious people. Here are mountains, hills, plains, vallies, rivers, and brooks all running most pleasantly into a fair bay, compassed, but for the mouth, with fruitful and delightful land. In the bay and rivers are many isles both great and small, some woody, some plain, most of them low and not inhabited. This bay lieth north and south, in which the water floweth near two hundred miles, and hath a channel for one hundred and forty miles of depth, betwixt six and fifteen fathoms, holding in breadth for the most part ten or fourteen miles. From the head of the bay to the north-west, the land is mountainous and so in a manner from thence by a south-west line; so that the more southward, the farther off from the bay are those mountains; from which fall certain brooks, which after come to fine principal navigable rivers. These run from the north-west into the south-east, and so into the west side of the bay, where the fall of every river is within twenty or fifteen miles one of another.

The mountains are of divers natures, for at the head of the bay the rocks are of a composition like mill-stones; some of marble, &c.; and many pieces like christal, we found, as thrown down by water from these mountains. For in winter they are covered with much snow, and when it dissolveth the waters fall with such violence, that it causeth great inundations in some narrow vallies, which is scarce perceived, being once in the rivers. These waters wash from the rocks such glistering tinctures, that the ground in some places seemeth as gilded, where both the rocks and the earth are so splendent to behold, that better judgments than ours might have been persuaded they contained more than probabilities. The vesture of the earth in most places doth manifestly prove the nature of the soil to be lusty and very rich. The colour of the earth we found in divers places, resembleth bole armoniac, terra sigillata, and lemnia, fuller's-earth, marl, and divers other such appearances: but generally for the most part it is a black sandy mould, in some places a fat slimy clay, in other places a very barren gravel. But the best ground is known by the vesture it beareth, as by the greatness of trees, or abundance of weeds, &c.

The country is not mountainous, nor yet low, but such pleasant plain hills, and fertile vallies, one prettily crossing another, and watered so conveniently with fresh brooks and springs, no less commodious than delightful. By the rivers are many plain marshes, containing some twenty, some one hundred, some two hundred acres, some more, some less. Other plains there are few, but only where the savages inha-

bit, but all overgrown with trees and weeds, being a plain wilderness as God first made it.

On the west side of the bay we said were five fair and delightful navigable rivers. The first of those, and the next to the mouth of the bay, hath its course from the west-north-west; it is called Powhatan, according to the name of a principal country that lieth upon it. The mouth of this river is near three miles in breadth, yet do the shoals force the channel so near the land, that a sacre will overshoot it at point blank. It is navigable one hundred and fifty miles, the shoals and soundings are here needless to be expressed. It falleth from rocks far west in a country inhabited by a nation they call Monacans. But where it cometh into our discovery it is Powhatan. In the farthest place that was diligently observed, are falls, rocks, shoals, &c. which makes it past navigation any higher. Thence in the running downward, the river is enriched with many goodly brooks, which are maintained by an infinite number of small rundles and pleasant springs, that disperse themselves for best service, as do the veins of a man's body. From the south there falls into it, first, the pleasant river of Apamatuck; next, more to the east, are two small rivers of Quiyougcohanocke; a little farther is a bay, wherein falleth three or four pretty brooks and creeks, that half intrench the inhabitants of Warraskoyac; then the river of Nandsamund; and lastly, the brook of Chesapeack. From the north side is the river of Chickahamania, the back river of James Town; another by the Cedar Isle, where we lived ten weeks upon oysters, then a convenient harbour for fisher boats at Kencoughtan, that so turneth itself into bays and creeks, it makes that place very pleasant to inhabit, their corn-fields being girded therein in a manner as peninsulas. The most of these rivers are inhabited by several nations, or rather families, of the name of the rivers. They have also over these some governor, as their king, which they call Werowances. In a peninsula on the north side of this river are the English planted in a place by them called James Town, in honour of the King's most Excellent Majesty.

The first, and next the river's mouth, are the Kecoughtans, who, besides their women and children, have not past twenty fighting men. The Paspaheghes (on whose land is seated James Town, some forty miles from the bay) have not past forty. The river called Chickahamania near two hundred and fifty; the Weanocks one hundred; the Arrowhatocks thirty; the place called Towhatan, some forty; on the south side this river, the Appamatucks have fixty fighting men; the Quiyougcohanocks twenty five; the Nandsamunds two hundred; the Chesapeacks one hundred; of this last place the bay beareth the name. In all these places is a several commander, which they call Werowance, except the Chickahamanians, who are governed by the priests and their assistants, or their elders, called Caw-cawwassoughes. In summer, no place affordeth more plenty of sturgeon, nor in winter more abundance of fowl, especially in the time of frost. I took once fifty-two sturgeons at a draught, at another sixty-eight. From the latter end of May till the end of June are taken few, but young sturgeons of two feet or a yard long. From thence till the midst of September, them of two or three yards long, and few others; and in four or five hours, with one net, were ordinarily taken seven or eight; often more, seldom less. In the small rivers, all the year, there is good plenty of small fish; so that with hooks, those that would take pains had sufficient.

Fourteen miles northward from the river Powhatan is the river Pamaunkee, which is navigable fixty or seventy miles, but with catches and small barks, thirty or forty miles farther. At the ordinary flowing of the salt water, it divideth itself into two gallant branches.

branches. On the south side inhabit the people of Youghtanund, who have about sixty men for wars. On the north branch Mattapament, who have thirty men. Where this river is divided the country is called Pamaunkee, and nourisheth near three hundred able men. About twenty-five miles lower, on the north side of this river, is Werawocomoco, where their great king inhabited when I was delivered him prisoner; yet there are not past forty able men. Ten or twelve miles lower, on the south side of this river, is Chiskiack, which hath some forty or fifty men. These, as also Apamatuck, Irrohatoock, and Powhatan, are their great king's chief alliance, and inhabitants; the rest his conquests.

Before we come to the third river that falleth from the mountains, there is another river, some thirty miles navigable, that cometh from the inland, called Payankatanke, the inhabitants are about fifty or sixty serviceable men.

The third navigable river is called Toppahanock: this is navigable some hundred and thirty miles; at the top of it inhabit the people called Mannahoacks, amongst the mountains, but they are above the place we described. Upon this river, on the north side, are the people Cuttatawomen, with thirty fighting men. Higher are the Moraughtacunds, with eighty. Beyond them Rapahanock, with one hundred. Far above is another, Cuttatawomen, with twenty. On the south is the pleasant seat of Nantaughtacund, having one hundred and fifty men. This river also, as the two former, is replenished with fish and fowl.

The fourth river is called Patawomeke, six or seven miles in breadth; it is navigable one hundred and forty miles, and fed as the rest with many sweet rivers and springs, which fall from the bordering hills: these hills many of them are planted, and yield no less plenty and variety of fruit, than the river exceedeth with abundance of fish; it is inhabited on both sides: first, on the south side, at the very entrance is Wighcocomoco, and hath some hundred and thirty men, beyond them Sekacawone, with thirty; the Onawmanient, with one hundred; and the Patawomekes more than two hundred. Here doth the river divide itself into three or four convenient branches: the greatest of the least is called Quiyough, trending north-west, but the river itself turneth north-east, and is still a navigable stream. On the western side of this bight is Tauxenent, with forty men: on the north of this river is Secowocomoco, with forty: somewhat further Potapaco, with twenty: in the east part is Pamacaeack, with sixty: after Moyowance, with one hundred: and lastly, Nacotchtanke, with eighty. The river above this place maketh his passage down a low pleasant valley, overshadowed in many places with high rocky mountains, from whence distil innumerable sweet and pleasant springs.

The fifth river is called Pawtuxunt, of a less proportion than the rest; but the channel is sixteen fathoms deep in some places. Here are infinite skulls of divers kinds of fish more than elsewhere. Upon this river dwell the people called Acquintanacksuak, Pawtuxunt, and Mattapanient. Two hundred men was the greatest strength that could be there perceived; but they inhabit together, and not so dispersed as the rest. These of all other we found most civil to give entertainment.

Thirty leagues northward is a river, not inhabited, yet navigable, for the red clay resembling bole armoniack, we called it Bolus. At the end of the bay, where it is six or seven miles in breadth, it divides itself into four branches; the best cometh north-west from among the mountains, but though canoes may go a day's journey or two up it, we could not get two miles up it with our boats for rocks; upon it is seated the Sasquesahanocks, near it north-and-by-west runneth a creek a mile and a half; at the head whereof, the Eble left us on shore, where we found many trees cut with hatchets.

The next tide, keeping the shore, to seek for some savages, (for within thirty leagues sailing we saw not any, being a barren country,) we went up another small river like a creek, six or seven miles: from thence returning, we met seven canoes of the Massowomeks, with whom we had conference by signs, for we understood one another scarce a word: the next day we discovered the small river and people of Tockwhogh trending eastward.

Having lost our grapnel among the rocks of Sasquesahanocks, we were then near two hundred miles from home, and our barge about two tons, and had in it but twelve men to perform this discovery, wherein we lay above twelve weeks upon those great waters in those unknown countries, having nothing but a little meal, oatmeal, and water to feed us, and scarce half sufficient of that for half that time, but what provision we got among the savages, and such roots and fish as we caught by accident, and God's direction; nor had we a mariner, nor any had skill to trim the sails, but two sailors and myself, the rest being gentlemen, or them were as ignorant in such toil and labour. Yet necessity in a short time, by good words and examples, made them do that that caused them ever after to fear no colours. What I did with this small means, I leave to the reader to judge, and the map I made of the country, which is but a small matter, in regard of the magnitude thereof. But to proceed, sixty of those Sasquesahanocks came to us with skins, bows, arrows, targets, beads, swords, and tobacco-pipes, for presents. Such great and well-proportioned men are seldom seen, for they seemed like giants to the English, yea, and to their neighbours, yet seemed of an honest and simple disposition, with much ado restrained from adoring us as gods. Those are the strangest people of all those countries, both in language and attire; for their language, it may well beseem their proportions, sounding from them as a voice in a vault. Their attire is the skins of bears and wolves; some have cassocks made of bears' heads and skins, that a man's head goes through the skin's neck, and the ears of the bear fastened to his shoulders, the nose and teeth hanging down his breast, another bear's face split behind him, and at the end of the nose hung a paw, the half sleeves coming to the elbows, were the necks of bears, and the arms through the mouth, with paws hanging at their noses. One had the head of a wolf hanging in a chain for a jewel, his tobacco pipe, three quarters of a yard long, prettily carved, with a bird, a deer, or some such device at the great end, sufficient to beat out one's brains; with bows, arrows, and clubs, suitable to their greatness. These are scarce known to Powhatan. They can make near six hundred able men, and are pallisadoed in their towns, to defend them from the Massawomekes, their mortal enemies. Five of their chief Werowances came aboard us, and crossed the bay in their barge. The picture of the greatest of them is signified in the map; the calf of whose leg was three quarters of a yard about, and all the rest of his limbs so answerable to that proportion, that he seemed the goodliest man we ever beheld. His hair, the one side was long, the other shorn close, with a ridge over his crown, like a coxcomb. His arrows were five quarters long, headed with the splinters of a white crystal-like stone, in form of a heart, an inch broad, and an inch and a half or more long: these he wore in a wolf's skin at his back, for his quiver, his bow in the one hand, and his club in the other, as is described.

On the east side of the bay is the river Tockwhogh, and upon it a people that can make one hundred men, seated some seven miles within the river: where they have a fort very well pallisadoed and mantled with bark of trees. Next them is Ozinies, with sixty men. More to the south of that east side of the bay, the river Rapahanock, near unto which is the river Kuskarawaock, upon which is seated a people, with two hundred men. After that, is the river Tants Wighcocomoco, and on it a people with
one

one hundred men. The people of those rivers are of little stature, of another language from the rest, and very rude. But they on the river Acohanock, with forty men, and they of Accomack, eighty men, doth equalize any of the territories of Powhatan, and speak his language, who over all those doth rule as king.

Southward we went to some parts of Chawonock and the Mangoags to search for them left by Mr. White. Amongst those people are thus many several nations of fundry languages, that environ Powhatans territories. The Chawonocks, the Mangoags, the Monacans, the Mannahokes, the Mafawomekes, the Powhatans, the Sassefahanocks, the Atquanachukes, the Tockwoghes, and the Kuscarawaoekes. All those not any one understandeth another but by interpreters. Their several habitations are more plainly described by this annexed map, which will present to the eye the way of the mountains, and current of the rivers, with their several turnings, bays, shoals, isles, inlets, and creeks, the breadth of the waters, the distances of places, and such like. In which map observe this, that as far as you see the little crosses on rivers, mountains, or other places have been discovered; the rest was had by information of the savages, and are set down according to their instructions.

Thus have I walked a wayless way, with uncouth pace,
Which yet no Christian man did ever trace:
But yet I know this not affects the mind,
Which ears doth hear, as that which eyes do find.

Of such Things which are naturally in Virginia, and how they use them.

VIRGINIA doth afford many excellent vegetables, and living creatures, yet grass there is little or none, but what groweth in low marshes: for all the country is overgrown with trees, whose droppings continually turneth their grass to weeds, by reason of the rankness of the ground, which would soon be amended by good husbandry. The wood that is most common is oak and walnut; many of their oaks are so tall and straight that they will bear two foot and a half square of good timber for twenty yards long. Of this wood there is two or three several kinds. The acorns of one kind, whose bark is more white than the other, and somewhat sweetish, which being boiled, at last affords a sweet oil, that they keep in gourds to annoint their heads and joints. The fruit they eat made in bread or otherwise. There is also some elms, some black walnut-tree, and some ash: of ash and elm they make soap ashes. If the trees be very great, the ashes will be good, and melt to hard lumps, but if they be small, it will but powder, and not so good as the other. Of walnuts there is two or three kinds; there is a kind of wood we called cypress, because both the wood, the fruit, and leaf did most resemble it, and of those trees there are some near three fathom about at the foot, very straight, and fifty, sixty, or eighty feet without a branch. By the dwelling of the savages are some great mulberry-trees, and in some parts of the country they are found growing naturally in pretty groves. There was an essay made to make silk, and surely the worms prospered excellent well, till the master workman fell sick. During which time they were eaten with rats.

In some parts were found some chesnuts, whose wild fruit equal the best in France, Spain, Germany, or Italy. Plums there are of three sorts. The red and white are like our hedge plums, but the other, which they call putchamins, grow as high as a palmeta: the fruit is like a medlar; it is first green, then yellow, and red when it is ripe; if it be not ripe, it will draw a man's mouth awry, with much torment; but when it is ripe, it is as delicious as an apricot.

They

They have cherries, and those are much like a damson, but for their taste and colour we called them cherries. We saw some few crabs, but very small and bitter. Of vines great abundance, in many parts that climb the tops of the highest trees in some places, but these bear but few grapes. Except by the rivers and savage habitations, where they are not overshadowed from the sun, they are covered with fruit, though never pruned nor manured. Of those hedge-grapes we made near twenty gallons of wine, which was like our French British wine, but certainly they would prove good were they well manured. There is another sort of grape near as great as a cherry, this they call messamins; they be fat, and the juice thick. Neither doth the taste so well please when they are made in wine. They have a small fruit growing on little trees, husked like a chestnut, but the fruit most like a very small acorn. This they call chechinquamins, which they esteem a great dainty. They have a berry much like our gooseberry, in greatness, colour, and taste; those they call rawcomens, and do eat them raw or boiled. On these natural fruits they live a great part of the year, which they use in this manner; the walnuts, chestnuts, acorns, and chechinquamins are dried to keep. When they need walnuts they break them between two stones, yet some part of the shells will cleave to the fruit. Then do they dry them again upon a mat over a hurdle. After they put it into a mortar of wood, and beat it very small; that done they mix it with water, that the shells may sink to the bottom. This water will be coloured as milk, which they call pawcohiccora, and keep it for their use. The fruit like medlars, they call putchamins, they cast upon hurdles on a mat, and preserve them as prunes. Of their chestnuts and chechinquamins boiled, they make both broth and bread for their chief men, or at their greatest feasts. Besides those fruit-trees, there is a white poplar, and another tree like unto it, that yieldeth a very clear and an odoriferous gum like turpentine, which some called balsam. There are also cedars and sassafras trees. They also yield gums in a small proportion of themselves. We tried conclusions to extract it out of the wood, but nature afforded more than our arts.

In the watery vallies grow a berry which they call ocoughtanamnis very much like unto capers. These they dry in summer. When they eat them they boil them near half a day; for otherwise they differ not much from poison. Mattoum groweth as our bents. The seed is not much unlike to rye, though much smaller. This they use for a dainty bread buttered with deer suet.

During summer there are either strawberries, which ripen in April, or mulberries which ripen in May and June. Raspberries, hurts, or a fruit that the inhabitants call maracock, which is a pleasant wholesome fruit much like a lemon. Many herbs in the spring are commonly dispersed throughout the woods, good for broths and fallads, as violets, parsley, sorrell, &c. Besides many we used whose names we know not.

The chief root they have for food is called tockawhough. It grows like a flag in marshes. In one day a savage will gather sufficient for a week. These roots are much of the greatness and taste of potatoes. They used to cover a great many of them with oak leaves and fern, and then cover all with earth in the manner of a coalpit; over it, on each side, they continue a great fire twenty-four hours before they dare eat it. Raw it is no better than poison, and being roasted, except it be tender and the heat abated, or sliced and dried in the sun, mixed with sorrel and meal, or such like, it will prick and torment the throat extremely, and yet in summer they use this ordinarily for bread.

They have another root which they call wighsacan: as the other feedeth the body, so this cureth their hurts and diseases. It is a small root, which they bruise and apply to the wound. Pocones is a small root that groweth in the mountains, which being dried and beat in powder turns red; and this they use for swellings, aches, anointing their

their joints, painting their heads and garments. They account it very precious, and of much worth. Musquaſpen is a root of the bigness of a finger, and as red as blood. In drying it will wither almost to nothing. This they use to paint their mats, targets, and such like.

There is also pellitory of Spain, saffraſas, and divers other simples, which the apothecaries gathered, and commended to be good and medicinable.

In the low marshes grow plots of onions, containing an acre of ground, or more, in many places; but they are small, not past the bigness of the top of one's thumb.

Of beasts the chief are deer, nothing differing from ours. In the deserts towards the heads of rivers there are many, but amongst the rivers few. There is a beast they call aroughcun, much like a badger, but useth to live on trees, as squirrels do. Their squirrels some are near as great as our smallest sort of wild rabbits, some blackish or black and white, but the most are grey.

A small beast they have they call assapanic, but we call them flying squirrels, because spreading their legs, and so stretching the largeness of their skins, that they have been seen to fly thirty or forty yards. An opossum hath a head like a swine and a tail like a rat, and is of the bigness of a cat. Under her belly she hath a bag, wherein she lodgeth, carrieth, and suckleth her young. A musſascus is a beast of the form and nature of our water-rats, but many of them smell exceedingly strong of musk. Their hares no bigger than our conies, and few of them to be found.

Their bears are very little in comparison of those of Muscovy and Tartary. The beaver is as big as an ordinary water-dog, but his legs exceeding short; his fore-feet like a dog's, his hinder feet like a swan's. His tail somewhat like the form of a racket, bare without hair, which to eat the savages esteem a great delicacy. They have many otters, which, as the beavers, they take with snares, and esteem the skins great ornaments, and of all those beasts they use to feed when they catch them. An utchunquoyes is like a wild cat. Their foxes are like our silver-haired conies, of a small proportion, and not smelling like those in England. Their dogs of that country are like their wolves, and cannot bark, but howl, and the wolves not much bigger than our English foxes. Martins, polecats, weasels, and minks, we know they have, because we have seen many of their skins, though very seldom any of them alive. But one thing is strange, that we could never perceive their vermin destroy our hens, eggs, nor chickens, nor do any hurt, nor their flies nor serpents any way pernicious, where in the south parts of America they are always dangerous, and often deadly.

Of birds the eagle is the greatest devourer. Hawks there be of divers sorts, as our falconers called them: sparrow-hawks, lanarets, goshawks, falcons, and ospreys, but they all prey most upon fish. Their partridges are little bigger than our quails. Wild turkies are as big as our tame. There are woofsels or blackbirds with red shoulders, thrushes, and divers sorts of small birds, some red, some blue, scarce so big as a wren; but few in summer. In winter there are great plenty of swans, cranes, grey and white, with black wings, herons, geese, brants, duck, wigeon, dotterell, oxies, parrots, and pigeons. Of all those sorts great abundance, and some other strange kinds, to us unknown by name; but in summer not any, or a very few to be seen.

Of fish we were best acquainted with sturgeon, grampus, porpus, seals, stingrays, whose tails are very dangerous, brets, mullets, white salmons, trouts, soals, plaice, herrings, coney-fish, rock-fish, eels, lampreys, cat-fish, shads, perch of three sorts, crabs, shrimps, crevices, oysters, cockles, and muscles. But the most strange fish is a small one, so like the picture of St. George and the Dragon as possible can be, except

except his legs and wings, and the toad-fish, which will swell till it be like to burst, when it cometh into the air.

Concerning the entrails of the earth little can be said for certainty. There wanted good refiners; for those that took upon them to have skill this way, took up the washings from the mountains, and some moskered shining stones and spangles which the waters brought down, flattering themselves in their own vain conceits to have been supposed what they were not, by the means of that ore, if it proved as their arts and judgments expected. Only this is certain, that many regions lying in the same latitude afford mines very rich, of divers natures. The crust also of these rocks would easily persuade a man to believe there are other mines than iron and steel, if there were but means and men of experience that knew the mine from spar.

Of their planted Fruits in Virginia, and how they use them.

THEY divide the year into five seasons. Their winter some call popanow, the spring catapeuk, the summer cohattayough, the earing of their corn nepinough, the harvest and fall of leaf taquitock. From September until the midst of November are the chief feasts and sacrifice. Then have they plenty of fruits, as well planted as natural, as corn, green and ripe, fish, fowl, and wild beasts exceeding fat.

The greatest labour they take is in planting their corn, for the country naturally is overgrown with wood. To prepare the ground, they bruise the bark of the trees near the root, then do they scorch the roots with fire that they grow no more. The next year with a crooked piece of wood they beat up the weeds by the roots, and in that mould they plant their corn. Their manner is this. They make a hole in the earth with a stick, and into it they put four grains of wheat and two of beans. These holes they make four feet one from another. Their women and children do continually keep it weeding, and when it is grown middle high, they hill it about like a hop-yard.

In April they begin to plant, but their chief plantation is in May, and so they continue till the midst of June. What they plant in April they reap in August, for May in September, for June in October. Every stalk of their corn commonly beareth two ears, some three, seldom any four, many but one, and some none. Every ear ordinarily hath between two hundred and five hundred grains. The stalk being green hath a sweet juice in it, somewhat like a sugar cane, which is the cause that when they gather their corn green, they suck the stalks: for as we gather green peas, so do they their corn being green, which excelleth their old. They plant also peas they call assentamens, which are the same they call in Italy fagioli. Their beans are the same the Turks call garnanfes; but these they much esteem for dainties.

Their corn they roast in the ear green, and bruising it in a mortar of wood with a polt, lap it in rolls in the leaves of their corn, and so boil it for a dainty. They also reserve that corn late planted that will not ripe, by roasting it in hot ashes, the heat thereof drying it. In winter they esteem it being boiled with beans for a rare dish, they call paufarowmena. Their old wheat they first steep a night in hot water, in the morning pounding it in a mortar. They use a small basket for their temmes, then pound again the great, and so separating by dashing their hand in the basket, receive the flour in a platter made of wood, scraped to that form with burning and shells. Tempering this flour with water, they make it either in cakes, covering them with ashes till they be baked, and then washing them in fair water, they dry presently with their own heat:

or else boil them in water, eating the broth with the bread, which they call ponap. The grouts and pieces of the corns remaining, by fanning in the platter or in the wind, away; the bran they boil three or four hours with water, which is an ordinary food they call ustatahamen. But some more thrifty than cleanly do burn the core of the ear to powder, which they call pungnough, mingling that in their meal, but it never tasted well in bread nor broth. Their fish and flesh they boil either very tenderly, or boil it so long on hurdles over the fire; or else after the Spanish fashion, putting it on a spit, they turn first the one side, then the other, till it be as dry as their jerkin beef in the West Indies, that they may keep it a month or more without putrifying. The broth of fish or flesh they eat as commonly as the meat.

In May also amongst their corn they plant pumpions, and a fruit like unto a muskmelon, but less and worse, which they call macocks. These increase exceedingly, and ripen in the beginning of July, and continue until September. They plant also maracocks, a wild fruit like a lemon, which also increase infinitely. They begin to ripen in September, and continue till the end of October. When all their fruits be gathered, little else they plant, and this is done by their women and children; neither doth this long suffice them, for near three parts of the year they only observe times and seasons, and live of what the country naturally affordeth from hand to mouth, &c.

The Commodities in Virginia, or that may be had by Industry.

THE mildness of the air, the fertility of the soil, and situation of the rivers, are so propitious to the nature and use of man, as no place is more convenient for pleasure, profit, and man's sustenance, under that latitude or climate.

Here will live any beasts, as horses, goats, sheep, asses, hens, &c. as appeared by them that were carried thither. The waters, isles, and shoals, are full of safe harbours for ships of war or merchandize, for boats of all sorts, for transportation or fishing, &c. The bay and rivers have much merchantable fish, and places fit for salt coats, building of ships, making of iron, &c.

Muscovia and Polonia do yearly receive many thousands for pitch, tar, soap-ashes, rosin, flax, cordage, sturgeon, masts, yards, wainscot, furs, glass, and such like; also Sweedland for iron and copper. France in like manner for wine, canvas, and salt. Spain as much for iron, steel, figs, raisins, and sacks. Italy with silks and velvets consumes our chief commodities. Holland maintains itself by fishing and trading at our own doors. All these temporize with other for necessities, but all as uncertain as peace or wars. Besides the charge, travel, and danger in transporting them by seas, lands, storms, and pirates. Then how much hath Virginia the prerogative of all those flourishing kingdoms, for the benefit of our land, when as within one hundred miles all those are to be had, either ready provided by nature, or else to be prepared, were there but industrious men to labour. Only of copper we may doubt is wanting, but there is good probability that both copper and better minerals are there to be had for their labour. Other countries have it. So then here is a place a nurse for soldiers, a practice for mariners, a trade for merchants, a reward for the good, and that which is most of all, a business (most acceptable to God) to bring such poor infidels to the knowledge of God and his holy gospel.

Of the natural Inhabitants of Virginia.

THE land is not populous, for the men be few; their far greater number is of women and children. Within sixty miles of James Town, there are about some five thousand people

people, but of able men fit for their wars scarce fifteen hundred. To nourish so many together they have yet no means, because they make so small a benefit of their land, be it never so fertile. Six or seven hundred have been the most hath been seen together, when they gathered themselves to have surprized me at Pamaunkee, having but fifteen to withstand the worst of their fury. As small as the proportion of ground that hath yet been discovered, is in comparison of that yet unknown: the people differ very much in stature, especially in language, as before is expressed. Some being very great as the Sefquesahanocks, others very little as the Wighcocomocoes, but generally tall and straight, of a comely proportion, and of a colour brown when they are of any age, but they are born white. Their hair is generally black, but few have any beards. The men wear half their beards shaven, the other half long, for barbers they use their women, who with two shells will grate away the hair of any fashion they please. The women are cut in many fashions agreeable to their years, but ever some part remaineth long. They are very strong, of an able body and full of agility, able to endure to lie in the woods under a tree by the fire, in the worst of winter, or in the weeds and grass, in ambuscade in the summer. They are inconstant in every thing, but what fear constraineth them to keep. Crafty, timorous, quick of apprehension, and very ingenuous. Some are of disposition fearful, some bold, most cautelous, all savage, generally covetous of copper, beads, and such like trash. They are soon moved to anger, and so malicious that they seldom forget an injury: they seldom steal one from another, lest their conjurors should reveal it, and so they be pursued and punished, that they are thus feared is certain, but that any can reveal their offences by conjuration I am doubtful. Their women are careful not to be suspected of dishonesty without the leave of their husbands. Each household knoweth their own lands and gardens, and most live of their own labour. For their apparel, they are sometime covered with the skins of wild beasts, which in winter are dressed with the hair, but in summer without. The better sort use large mantles of deer skins, not much differing in fashion from the Irish mantles. Some embroidered with white beads, some with copper, others painted after their manner, but the common sort have scarce to cover their nakedness but with grass, the leaves of trees, or such like. We have seen some use mantles made of turkey feathers, so prettily wrought and woven with threads that nothing could be discerned but the feathers, that was exceeding warm and very handsome; but the women are always covered about their middles with a skin, and very shamefast to be seen bare. They adorn themselves most with copper beads and paintings. Their women some have their legs, hands, breasts, and face, cunningly embroidered with divers works, as beasts, serpents, artificially wrought into their flesh with black spots; in each ear commonly they have three great holes, whereat they hang chains, bracelets, or copper. Some of their men wear in those holes a small green and yellow coloured snake near half a yard in length, which crawling and lapping herself about his neck oftentimes familiarly would kiss his lips; others wear a dead rat tied by the tail, some on their heads wear the wing of a bird, or some large feather with a rattle; those rattles are somewhat like the shape of a rapier, but less, which they take from the tail of a snake. Many have the whole skin of a hawk or some strange fowl stuffed with the wings abroad, others a broad piece of copper, and some the hand of their enemy dried. Their heads and shoulders are painted red with the root pocone bruised to powder, mixed with oil, this they hold in summer to preserve them from the heat, and in winter from the cold. Many other forms of paintings they use, but he is the most gallant that is the most monstrous to behold.

Their buildings and habitations are for the most part by the rivers, or not far distant from

from some fresh spring ; their houses are built like our arbours, of small young springs bowed and tied, and so close covered with mats, or the barks of trees very handsomely, that notwithstanding either wind, rain, or weather, they are as warm as stoves, but very smoky, yet at the top of the house there is a hole made for the smoke to go into right over the fire.

Against the fire they lie on little hurdles of reeds covered with a mat, borne from the ground a foot and more by a hurdle of wood, on these round about the house they lie heads and points one by the other against the fire, some covered with mats, some with skins, and some stark naked lie on the ground, from six to twenty in a house. Their houses are in the midst of their fields or gardens, which are small plots of ground, some twenty acres, some forty, some one hundred, some two hundred, some more, some less. In some places from two to fifty of those houses together, or but a little separated by groves of trees. Near their habitations is little small wood or old trees on the ground by reason of their burning of them for fire, so that a man may gallop a horse amongst these woods any way, but where the creeks or rivers shall hinder.

Men, women, and children have their several names according to the several humour of their parents. Their women (they say) are easily delivered of child ; yet do they love children very dearly. To make them hardy in the cold mornings they wash in the rivers, and by painting and ointments so tan their skins, that after a year or two no weather will hurt them.

The men bestow their times in fishing, hunting, wars, and such man-like exercises, scorning to be seen in any woman-like exercise, which is the cause that the women be very painful, and the men often idle. The women and children do the rest of the work, they make mats, baskets, pots, mortars, pound their corn, make their bread, prepare their victuals, plant their corn, gather their corn, bear all kind of burdens, and such like.

Their fire they kindle presently by chafing a dry pointed stick in a hole of a little square piece of wood, that firing itself, will so fire moss, leaves, or any such like dry thing that will quickly burn. In March and April they live much upon their fishing wires, and feed on fish, turkeys, and squirrels. In May and June they plant their fields, and live most of acorns, walnuts, and fish. But to amend their diet, some disperse themselves in small companies, and live upon fish, beasts, crabs, oysters, land-tortoises, strawberries, mulberries, and such like. In June, July, and August, they feed upon the roots of tocknough berries, fish, and green wheat. It is strange to see how their bodies alter with their diet, even as the deer and wild beasts they seem fat and lean, strong and weak. Powhatan, their great king, and some others, that are provident, roast their fish and flesh upon hurdles as before is expressed, and keep it till scarce times.

For fishing, hunting, and wars, they use much their bow and arrows. They bring their bows to the form of ours, by the scraping of a shell. Their arrows are made some of straight young sprigs, which they head with bone, some two or three inches long ; these they use to shoot at squirrels on trees. Another sort of arrows they use made of reeds ; these are pierced with wood, headed with splinters of chrystal, or some sharp stone, the spurs of a turkey, or the bill of some bird. For his knife he hath the splinter of a reed to cut his feathers in form : with this knife also he will joint a deer, or any beast, shape his shoes, buskins, mantles, &c. To make the notch of his arrow he hath the tooth of a beaver, set in a stick, wherewith he grateth it by degrees : his arrow-head he quickly maketh with a little bone, which he ever weareth

weareth at his bracer, of any splint of a stone, or glass, in the form of a heart, and these they glue to the end of their arrows. With the sinews of deer, and the tops of deers horns, boiled to a jelly, they make a glue that will not dissolve in cold water.

For their wars also they use targets that are round, and made of the barks of trees, and a sword of wood at their backs, but oftentimes they use for swords the horn of a deer, put through a piece of wood in form of a pickaxe; some a long stone sharpened at both ends, used in the same manner: this they were wont to use also for hatchets, but now by trucking they have plenty of the same form of iron; and those are their chief instruments and arms.

Their fishing is much in boats; these they make of one tree, by burning and scratching away the coals with stones and shells, till they have made it in form of a trough. Some of them are an ell deep, and forty or fifty feet in length, and some will bear forty men, but the most ordinary are smaller, and will bear ten, twenty, or thirty, according to their bigness. Instead of oars, they use paddles and sticks, with which they will row faster than our barges. Betwixt their hands and thighs, their women use to spin the barks of trees, deer sinews, or a kind of grass they call pemmenaw, of these they make a thread very even and readily. This thread serveth for many uses, as about their housing, apparel, as also they make nets for fishing, for the quantity as formally braided as ours; they make also with it lines for angles. Their hooks are either a bone grated, as they notch their arrows, in the form of a crooked pin or fish-hook, or of the splinter of a bone tied to the clift of a little stick, and with the end of the line they tie on the bait. They use also long arrows tied in a line, wherewith they shoot at fish in the rivers; but they of Accawmack use staves like unto javelins, headed with bone; with these they dart fish swimming in the water. They have also many artificial wires, in which they get abundance of fish.

In their hunting and fishing they take extreme pains, yet it being their ordinary exercise from their infancy, they esteem it a pleasure, and are very proud to be expert therein; and by their continual ranging and travel, they know all the advantages and places most frequented with deer, beasts, fish, fowl, roots, and berries. At their huntings they leave their habitations, and reduce themselves into companies, as the Tartars do, and go to the most desert places with their families, where they spend their time in hunting and fowling up towards the mountains, by the heads of their rivers, where there is plenty of game; for betwixt the rivers the grounds are so narrow, that little cometh here which they devour not: it is a marvel they can so directly pass these deserts, some three or four days journey, without habitation. Their hunting-houses are like unto harbours covered with mats; these their women bear after them, with corn, acorns, mortars, and all bag and baggage they use. When they come to the place of exercise, every man doth his best to shew his dexterity, for by their excelling in those qualities they get their wives. Forty yards will they shoot level, or very near the mark, and one hundred and twenty is their best at random. At their huntings in the deserts they are commonly two or three hundred together. Having found the deer, they environ them with many fires, and betwixt the fires they place themselves, and some take their stands in the midst. The deer being thus frightened by the fires and their voices, they chase them so long within that circle, that many times they kill six, eight, ten, or fifteen at a hunting. They use also to drive them into some narrow point of land, when they find that advantage, and so force them into the river, where, with their boats, they have ambuscadoes to kill them. When they have shot a deer by land, they follow him like blood-hounds by the blood and strain, and oftentimes

oftentimes so take them. Hares, partridges, turkies, or eggs, fat or lean, young or old, they devour all they can catch in their power. In one of these huntings they found me in the discovery of the head of the river of Chickahamania, where they flew my men, and took me prisoner in a bogmire, where I saw those exercises, and gathered these observations.

One savage hunting alone useth the skin of a deer slit on the one side, and so put on his arm through the neck, so that his hand comes to the head, which is stuffed, and the horns, head, eyes, ears, and every part as artificially counterfeited as they can devise; thus shrouding his body in the skin, by stalking he approacheth the deer, creeping on the ground from one tree to another; if the deer chance to find fault, or stand at gaze, he turneth the head with his hand to his best advantage to seem like a deer, also gazing and licking himself; so watching his best advantage to approach, having shot him, he chafeth him by his blood and strain till he get him.

When they intend any wars, the Werowances usually have the advice of their priests and conjurors, and their allies, and ancient friends, but chiefly the priests determine their resolution. Every Werowance, or some lusty fellow, they appoint captain over every nation. They seldom make war for lands or goods, but for women and children, and principally for revenge. They have many enemies, namely, all their westernly countries beyond the mountains, and the heads of the rivers. Upon the head of the Powhatans are the Monacans, whose chief habitation is at Rasauweak, unto whom the Mowhemenchughes, the Massinnacacks, the Monahassanughs, the Monasickapanoughs, and other nations, pay tributes. Upon the head of the river of Toppahanock, is a people called Mannahoacks, to these are contributors the Tauxanias, the Shackaconias, the Ontponeas, the Tegninateos, the Whonkenteaes, the Stegarakes, the Hassinnungaes, and divers others, all confederates with the Monacans, though many different in language, and be very barbarous, living for the most part of wild beasts and fruits. Beyond the mountains, from whence is the head of the river Patawomeke, the savages report, inhabit their most mortal enemies, the Massawomekes, upon a great salt water, which by all likelihood is either some part of Canada, some great lake, or some inlet of some sea that falleth into the South Sea. These Massawomekes are a great nation and very populous; for the heads of all those rivers, especially the Pattawomekes, the Pautuxuntes, the Sasquesahanocks, the Tockwoughes, are continually tormented by them, of whose cruelty they generally complained, and very importunate they were with me and my company to free them from these tormentors: to this purpose they offered food, conduct, assistance, and continual subjection; which I concluded to effect: but the council then present emulating my success, would not think it fit to spare me forty men to be hazarded in those unknown regions, having passed (as before was spoken of,) but with twelve, and so was lost that opportunity. Seven boats full of these Massawomekes we encountered at the head of the bay, whose targets, baskets, swords, tobaccopipes, platters, bows and arrows, and every thing shewed they much exceeded them of our parts, and their dexterity in their small boats, made of the barks of trees, sewed with bark, and well luted with gum, argueth that they are seated upon some great water.

Against all these enemies the Powhatans are constrained sometimes to fight. Their chief attempts are by stratagems, treacheries, or surprisals. Yet the Werowance's women and children they put not to death, but keep them captives. They have a method

method in war, and for our pleasures they shewed it to us, and it was in this manner performed at Mattapanient.

Having painted and disguised themselves in the fiercest manner they could devise, they divided themselves into two companies, near a hundred in a company; the one company called Monacas, the other Powhatans; either army had their captain. These, as enemies, took their stand a musket shot one from another, ranked themselves fifteen abreast, and each rank from another four or five yards, not in file, but in the opening betwixt their files; so the rear could shoot as conveniently as the front. Having thus pitched the fields, from either part went a messenger with these conditions; that who-soever were vanquished, such as escape upon their submission in two days after should live, but their wives and children should be prize for the conquerors. The messengers were no sooner returned, but they approached in their orders; on each flank a serjeant, and in the rear an officer for lieutenant, all duly keeping their orders, yet leaping and singing after their accustomed tune, which they only use in wars. Upon the first flight of arrows they gave such horrible shouts and screeches, as so many infernal hell-hounds could not have made them more terrible. When they had spent their arrows, they joined together prettily, charging and retiring, every rank seconding other; as they got advantage, they caught their enemies by the hair of the head, and down he came that was taken; his enemy with his wooden sword seemed to beat out his brains, and still they crept to the rear to maintain the skirmish. The Monacans decreasing, the Powhatans charged them in the form of a half moon; they, unwilling to be inclosed, fled all in a troop to their ambuscadoes, on whom they led them very cunningly. The Monacans disperse themselves among the fresh men, whereupon the Powhatans retired with all speed to their seconds, which the Monacans seeing, took that advantage to retire again to their own battle, and so each returned to their own quarter. All their actions, voices, and gestures, both in charging and retiring, were so strained to the height of their quality and nature, that the strangeness thereof made it seem very delightful.

For their music they use a thick cane, on which they pipe as on a recorder. For their wares they have a great deep platter of wood. They cover the mouth thereof with a skin, at each corner they tie a walnut, which meeting on the back side near the bottom, with a small rope they twitch them together till it be so tough and stiff, that they may beat upon it as upon a drum. But their chief instruments are rattles made of small gourds or pumpeons shells. Of these they have base, tenor, counter-tenor, mean, and treble. These mingled with their voices, sometimes twenty or thirty together, make such a terrible noise as would rather affright than delight any man. If any great commander arrive at the habitation of a Werowance, they spread a mat, as the Turks do, a carpet for him to sit upon. Upon another right opposite, they sit themselves. Then do all with a tunable voice of shouting bid him welcome. After this do two or more of their chiefest men make an oration, testifying their love. Which they do with such vehemency, and so great passions, that they sweat till they drop, and are so out of breath they can scarce speak. So that a man would take them to be exceeding angry, or stark mad. Such victuals as they have, they spend freely, and at night, where his lodging is appointed, they set a woman fresh painted red with pocones and oil, to be his bed fellow.

Their manner of trading is for copper, beads, and such like, for which they give such commodities as they have, as skins, fowls, fish, flesh, and their country corn. But their victuals are their chiefest riches.

Every

Every Spring they make themselves sick with drinking the juice of a root they call wighfacan, and water; whereof they pour so great a quantity, that it purgeth them in a very violent manner; so that in three or four days after, they scarce recover their former health. Sometimes they are troubled with dropfies, swellings, aches, and such like diseases; for cure whereof they build a stove in the form of a dove-house with mats, so close that a few coals therein covered with a pot, will make the patient sweat extremely. For swellings also they use small pieces of touch-wood, in the form of cloves, which pricking on the grief they burn close to the flesh, and from thence draw the corruption with their mouth. With this root wighfacan they ordinarily heal green wounds. But to scarify a swelling or make incision their best instruments are some splinted stone. Old ulcers, or putrified hurts are seldom seen cured amongst them. They have many professed physicians, who with their charms and rattles, with an infernal rout of words and actions, will seem to suck their inward grief from their navels, or their grieved places; but of our surgeons they were so conceited, that they believed any plaister would heal any hurt.

But 'tis not always in physicians' skill
To heal the patient that is sick and ill:
For sometimes sickness on the patient's part,
Proves stronger far than all physicians' art.

Of their Religion.

There is yet in Virginia no place discovered to be so savage in which they have not a religion, deer, and bow and arrows. All things that are able to do them hurt beyond their prevention, they adore with their kind of divine worship; as the fire, water, lightning, thunder, our ordnance, pieces, horses, &c. But their chief god they worship is the devil. Him they call Okee, and serve him more of fear than love. They say they have conference with him, and fashion themselves as near to his shape as they can imagine. In their temples they have his image evil favouredly carved, and then painted and adorned with chains of copper, and beads, and covered with a skin in such manner as the deformities may well suit with such a god. By him is commonly the sepulchre of their kings. Their bodies are first bowelled, then dried upon hurdles till they be very dry, and so about the most of their joints and neck they hang bracelets, or chains of copper, pearl, and such like, as they use to wear, their inwards they stuff with copper beads, hatchets, and such trash. Then lap they them very carefully in white skins, and so roll them in mats for their winding sheets. And in the tomb which is an arch made of mats, they lay them orderly. What remaineth of this kind of wealth their kings have, they set at their feet in baskets. These temples and bodies are kept by their priests.

For their ordinary burials they dig a deep hole in the earth with sharp stakes, and the corpse being lapped in skins and mats with their jewels, they lay them upon sticks in the ground, and so cover them with earth. The burial ended, the women, being painted all their faces with black coal and oil, do sit twenty-four hours in the houses mourning and lamenting by turns, with such yelling and howling, as may express their great passions.

In every territory of a Werowance is a temple and a priest, two or three or more. Their principal temple or place of superstition is at Uttamussack, at Pamaunkee, near unto which is a house, temple, or place of Powhatans.

Upon the top of certain red sandy hills in the woods, there are three great houses
filled

filled with images of their kings and devils, and tombs of their predecessors. Those houses are near sixty feet in length, built harbour-wise, after their building. This place they count so holy as that but the priests and kings dare come into them; nor the savages dare not go up the river in boats by it, but they solemnly cast some piece of copper, white beads, or pocones into the river, for fear their Okee should be offended and revenged of them. Thus

Fear was the first their gods begot:
Till fear began their gods were not.

In this place commonly are resident seven priests. The chief differed from the rest in his ornaments, but inferior priests could hardly be known from the common people, but that they had not so many holes in their ears to hang their jewels at. The ornaments of the chief priest were certain attires for his head made thus: they took a dozen or sixteen or more snake skins and stuffed them with moss, and of weasels and other vermin skins a good many. All these they tie by their tails, so as all their tails meet in the top of their head like a great tassel. Round about this tassel is as it were a crown of feathers, the skins hang round about his head, neck and shoulders, and in a manner cover his face. The faces of all their priests are painted as ugly as they can devise, in their hands they had every one his rattle, some bass, some smaller. Their devotion was most in songs, which the chief priest beginneth and the rest followed him; some times he maketh invocations with broken sentences by starts and strange passions, and at every pause, the rest give a short groan.

Thus seek they in deep foolishness,
To climb the height of happiness.

It could not be perceived that they keep any day as more holy than other; but only in some great distress of want, fear of enemies, times of triumph, and gathering together their fruits, the whole country of men, women, and children come together to solemnities. The manner of their devotion is sometimes to make a great fire in the house or fields, and all to sing and dance about it with rattles and shouts together, four or five hours. Sometimes they set a man in the midst, and about him they dance and sing, he all the while clapping his hands, as if he would keep time, and after their songs and dancing ended they go to their feasts.

Through god begetting fear,
Man's blinded mind did rear
A hell-god to the ghosts;
A heaven-god to the hoasts;
Yea god unto the seas:
Fear did create all these.

They have also divers conjurations, one they made when I was their prisoner; of which hereafter you shall read at large.

They have also certain altar stones they call pawcorances; but these stand from their temples, some by their houses, others in the woods and wildernesses, where they have had any extraordinary accident or encounter. And as you travel, at those stones they will tell you the cause why they were there erected, which from age to age they instruct their children, as their best records of antiquities. Upon these they offer blood, deer suet, and tobacco. This they do when they return from the wars, from

hunting, and upon many other occasions. They have also another superstition that they use in storms, when the waters are rough in the rivers and sea coasts. Their conjurers run to the water sides, or passing in their boats, after many hellish outcries and invocations, they cast tobacco, copper, pocones, or such trash into the water, to pacify that god whom they think to be very angry in those storms. Before their dinners and suppers, the better sort will take the first bit, and cast it in the fire, which is all the grace they are known to use.

In some part of the country they have yearly a sacrifice of children. Such a one was at Quiyoughcohanock, some ten miles from James Town, and thus performed. Fifteen of the properest young boys, between ten and fifteen years of age, they painted white. Having brought them forth, the people spent the forenoon in dancing and singing about them with rattles. In the afternoon they put those children to the root of a tree. By them all the men stood in a guard, every one having a bastinado in his hand, made of reeds bound together. This made a lane between them all along, through which there were appointed five young men to fetch these children: so every one of the five went through the guard to fetch a child each after other by turns, the guard fiercely beating them with their bastinados, and they patiently enduring and receiving all, defending the children with their naked bodies from the unmerciful blows that pay them soundly, though the children escape. All this while the women weep and cry out very passionately, providing mats, skins, moss, and dry wood, as things fitting their children's funerals. After the children were thus passed the guard, the guard tore down the trees, branches and boughs with such violence that they rent the body, and made wreaths for their heads, or bedecked their hair with the leaves. What else was done with the children was not seen; but they were all cast on a heap, in a valley, as dead, where they made a great feast for all the company. The Werowance being demanded the meaning of this sacrifice, answered, that the children were not all dead, but that the okee or devil did suck the blood from their left breast, who chanced to be his by lot, till they were dead, but the rest were kept in the wilderness by the young men till nine months were expired, during which time they must not converse with any; and of these were made their priests and conjurers. This sacrifice they held to be so necessary, that if they should omit it, their okee, or devil, and all their other quiyoughcosughs, which are their gods, would let them have no deer, turkies, corn, nor fish, and yet besides, he would make a great slaughter amongst them.

They think that their Werowances and priests, which they also esteem quiyoughcosughs, when they are dead, do go beyond the mountains towards the setting of the sun, and ever remain there in form of their okee, with their heads painted red with oil and pocones, finely trimmed with feathers, and shall have beads, hatchets, copper, and tobacco, doing nothing but dance and sing, with all their predecessors. But the common people, they suppose, shall not live after death, but rot in their graves, like dead dogs.

To divert them from this blind idolatry, we did our best endeavours, chiefly with the Werowance of Quiyoughcohanock, whose devotion, apprehension, and good disposition much exceeded any in those countries, with whom although we could not as yet prevail to forsake his false gods, yet this he did believe, that our God as much exceeded theirs, as our guns did their bows and arrows, and many times did send to me at James Town, intreating me to pray to my God for rain, for their gods would not send them any. And in this lamentable ignorance do these poor souls sacrifice themselves to the devil, not knowing their creator; and we had not language sufficient

sufficient so plainly to exprefs it, as make them understand it; which God grant they may; for

Religion 'tis that doth distinguish us
From their brute humour, well we may it know;
That can with understanding argue thus,
Our God is truth; but they cannot do so.

Of the Manner of the Virginians' Government.

Although the country people be very barbarous, yet have they amongst them such government as that their magistrates for good commanding, and their people for due subjection and obeying, excel many places that would be counted very civil. The form of their commonwealth is a monarchical government, one as emperor, ruleth over many kings or governors. Their chief ruler is called Powhatan, and taketh his name of his principal place of dwelling called Powhatan; but his proper name is Wahunsonacock. Some countries he hath which have been his ancestors, and came unto him by inheritance, as the country called Powhatan, Arrohatock, Appamatuck, Pamaunkee, Youghtanund, and Mattapanient. All the rest of his territories expressed in the map, they report, have been his several conquests. In all his ancient inheritances he hath houses built after their manner, like arbours, some thirty, some forty yards long, and at every house provision for his entertainment, according to the time. At Werowcomoco, on the north side of the river Pamaunkee, was his residence, when I was delivered him prisoner, some fourteen miles from James Town, where, for the most part, he was resident; but at last he took so little pleasure in our near neighbourhood, that he retired himself to Orapakes, in the desert betwixt Chickahamanta and Youghtanund. He is of personage a tall well-proportioned man, with a four look, his head somewhat grey, his beard so thin that it seemeth none at all, his age near sixty, of a very able and hardy body to endure any labour; about his person ordinarily attendeth a guard of forty or fifty of the tallest men his country doth afford. Every night, upon the four quarters of his house, are four centinels, each from other a flight shoot, and at every half hour one from the corps du guard doth hollow, shaking his lips with his finger between them; unto whom every sentinell doth answer round from his stand: if any fail, they presently send forth an officer that beateth him extremely.

A mile from Orapakes, in a thicket of wood, he hath a house, in which he keepeth his kind of treasure, as skins, copper, pearl, and beads, which he storeth up against the time of his death and burial. Here also is his store of red paint, for ointment, bows and arrows, targets and clubs. This house is fifty or sixty yards in length, frequented only by priests. At the four corners of this house stand four images as sentinels, one of a dragon, another a bear, the third like a leopard, and the fourth like a giant-like man, all made evil favouredly, according to their best workmanship.

He hath as many women as he will, whereof, when he lieth on his bed, one sitteth at his head, and another at his feet; but when he sitteth, one sitteth on his right hand, and another on his left; as he is weary of his women, he bestoweth them on those that best deserve them at his hands; when he dineth or suppeth, one of his women before and after meat, bringeth him water in a wooden platter to wash his hands; another waiteth with a bunch of feathers to wipe them, instead of a towel, and the feathers, when he hath wiped, are dried again. His kingdoms descend not to his sons nor children, but first to his brethren, whereof he hath three, namely, Opitchapan, Opechan-

Opechancanough, and Catataugh, and after their decease, to his sisters: first, to the eldest sister, then to the rest, and after them, to the heirs male or female of the eldest sister, but never to the heirs of the males.

He nor any of his people understand any letters, whereby to write or read, only the laws whereby he ruleth is custom. Yet, when he listeth, his will is a law, and must be obeyed; not only as a king, but as half a god, they esteem him. His inferior kings, whom they call Werowances, are tied to rule by custom, and have power of life and death at their command in that nature. But this word Werowance, which we call and construe for a king, is a common word, whereby they call all commanders; for they have but few words in their language, and but few occasions to use any officers more than one commander, which commonly they call Werowance or Caucorouse, which is captain. They all know their several lands, habitations, and limits, to fish, fowl, or hunt in; but they hold all of their great Werowance Powhatan, unto whom they pay tribute of skins, beads, copper, pearl, deer, turkies, wild beasts, and corn. What he commandeth, they dare not disobey in the least thing. It is strange to see with what great fear and adoration all these people do obey this Powhatan; for at his feet they present whatsoever he commandeth, and at the least frown of his brow, their greatest spirits will tremble with fear; and no marvel, for he is very terrible and tyrannous in punishing such as offend him: for example, he caused certain malefactors to be bound hand and foot, then having of many fires gathered great store of burning coals, they rake these coals round in the form of a cock-pit, and in the midst they cast the offenders to broil to death. Sometimes he causeth the heads of them that offend him to be laid upon the altar of sacrificing stone, and one with clubs beats out their brains: when he would punish any notorious enemy or malefactor, he causeth them to be tied to a tree, and with muscle-shells or reeds, the executioner cutteth off his joints one after another, ever casting what they cut off into the fire; then doth he proceed with shells and reeds to case the skin from his head and face; then do they rip up his belly, and so burn him with the tree and all. Thus themselves reported they executed George Cassen. Their ordinary correction is to beat them with cudgels. We have seen a man kneeling on his knees, and at Powhatan's command, two men have beat him on the bare skin, till he hath fallen senseless in a swoon, and yet never cry nor complained. And he made a woman, for playing the whore, sit upon a great stone, on her bare breech, twenty-four hours, only with corn and water, every three days, till nine days were past, yet he loved her exceedingly; notwithstanding, there are common whores by profession.

In the year 1608, he surprised the people of Payankatank, his near neighbours and subjects. The occasion was to us unknown, but the manner was thus: first, he sent divers of his men as to lodge amongst them that night, then the ambuscadoes environed all their houses, and at the hour appointed they all fell to the spoil: twenty-four men they slew, the long hair of the one side of their heads, with the skin cased off with shells or reeds, they brought away. The surprised also the women and the children, and the werowance: all these they presented to Powhatan. The werowance, women, and children became his prisoners, and do him service. The locks of hair, with their skins, he hanged on a line betwixt two trees; and thus he made ostentation of his triumph at Werowocomoco, where he intended to have done as much to me and my company.

And this is as much as my memory can call to mind worthy of note; which I have purposely collected, to satisfy my friends of the true worth and quality of Virginia. Yet some bad natures will not stick to slander the country, that will slovenly spit at all things, especially in company, where they can find none to contradict them. Who

though they were scarce ever ten miles from James Town, or at the most, but at the falls ; yet holding it a great disgrace that amongst so much action their actions were nothing, exclaim of all things, though they never adventured to know any thing, nor ever did any thing but devour the fruits of other men's labours ; being for most part of such tender educations, and small experience in martial accidents, because they found not English cities, nor such fair houses, nor at their own wishes any of their accustomed dainties, with feather-beds and down pillows, taverns and ale-houses in every breathing place, neither such plenty of gold and silver and dissolute liberty, as they expected, had little or no care of any thing but to pamper their bellies, to fly away with our pinnaces, or procure their means to return for England. For the country was to them a misery, a ruin, a death, a hell ; and their reports here, and their actions there according.

Some other there were that had yearly stipends to pass to and again for transportation : who to keep the mystery of the business in themselves, though they had neither time nor means to know much of themselves ; yet all men's actions or relations they so formally turned to the temporizing times simplicity, as they could make their ignorance seem much more, than all the true actors could by their experience. And those with their great words deluded the world with such strange promises as abused the business much worse than the rest ; for the business being built upon the foundation of their fained experience, the planters, the money, and means have still miscarried : yet they ever returning and the planters so far absent, who could contradict their excuses ? which, still to maintain their vain glory and estimation, from time to time have used such diligence as made them pass for truths, though nothing more false. And that the adventurers might be thus abused let no man wonder ; for the wisest living is soonest abused by him that hath a fair tongue and a dissembling heart.

There were many in Virginia merely projecting, verbal, and idle contemplators, and those so devoted to pure idleness, that though they had lived two or three years in Virginia lordly, necessity itself could not compel them to pass the peninsula, or pallisadoes of James Town ; and those witty spirits, what would they not affirm in the behalf of our transporters, to get victuals from their ships, or obtain their good words in England, to get their passes ? Thus from the clamours and the ignorance of false informers are sprung those disasters that sprung in Virginia : and our ingenious verbalists were no less plague to us in Virginia, than the locusts to the Egyptians. For the labour of twenty or thirty of the best only preserved in christianity, by their industry, the idle livers of near two hundred of the rest : who living near ten months of such natural means as the country naturally of itself afforded, notwithstanding all this, and the worst fury of the savages, the extremity of sickness, mutinies, faction, ignorance, and want of victual ; in all that time I lost but seven or eight men, yet subjected the savages to our desired obedience, and received contribution from thirty-five of their kings, to protect and assist them against any that should assault them, in which order they continued true and faithful, and as subjects to his Majesty, so long after as I did govern there, until I left the country ; since, how they have revolted, the country lost, and again replanted, and the businesses hath succeeded from time to time, I refer you to the relations of them returned from Virginia, that have been more diligent in such observations.

JOHN SMITH writ this with his own hand.

Because

Because many do desire to know the manner of their language, I have inserted these few words:

<i>Ka katorawincs yowo?</i> What call you this?	<i>Cafe</i> , how many.
<i>Nemarough</i> , a man.	<i>Ninghsapooeksku</i> , 20;
<i>Crenepo</i> , a woman.	<i>Nussapooeksku</i> , 30;
<i>Marowancheffo</i> , a boy.	<i>Yowghapooeksku</i> , 40;
<i>Yebawkans</i> , houses.	<i>Parankestassapooeksku</i> , 50;
<i>Matchcores</i> , skins or garments.	<i>Comatinchitassapooeksku</i> , 60;
<i>Mocasins</i> , shoes.	<i>Nusswashitassapooeksku</i> , 70;
<i>Tuffan</i> , beds.	<i>Kekataughtassapooeksku</i> , 90;
<i>Pokatawer</i> , fire.	<i>Necuttoughtysmough</i> , 100;
<i>Attawp</i> , a bow.	<i>Necuttweunquaough</i> , 1000.
<i>Attonce</i> , arrows.	<i>Rawcosowghs</i> , days.
<i>Monacookes</i> , swords.	<i>Kesowghes</i> , suns.
<i>Aumoubhowgh</i> , a target.	<i>Toppquough</i> , nights.
<i>Pawcussacks</i> , guns.	<i>Neparweshowghs</i> , moons.
<i>Tomabacks</i> , axes.	<i>Pawpaxfoughes</i> , years.
<i>Tockabacks</i> , pickaxes.	<i>Pummahumps</i> , stars.
<i>Pamefacks</i> , knives.	<i>Ofies</i> , heavens.
<i>Accowprets</i> , shears.	<i>Okees</i> , gods.
<i>Pawpecones</i> , pipes.	<i>Quiyoughcosoughs</i> , petty gods, and their affinities.
<i>Mattasin</i> , copper.	<i>Righcomoughes</i> , deaths.
<i>Uffarwassin</i> , iron, brass, silver, or any white metal.	<i>Kekughes</i> , lives.
<i>Musses</i> , woods.	<i>Mowchick woyawgh tarwgh noeragh kaquere mecher?</i> I am very hungry; what shall I eat?
<i>Attasckuff</i> , leaves, weeds, or grass.	<i>Tawnor nebiegh Powhatan?</i> Where dwells Powhatan?
<i>Chepsin</i> , land.	<i>Mache, nebiegh yourough, Orapaks</i> , Now he dwells a great way hence, at Orapaks.
<i>Shacquohocan</i> , a stone.	<i>Vittapitchewayne anpechitchs nehawper Werowacomoco</i> , You lie, he staid ever at Werowacomoco.
<i>Wepenter</i> , a cuckold.	<i>Kator nebiegh mattagh neer uttapitchewayne</i> , Truly he is there, I do not lie.
<i>Suckabanna</i> , water.	<i>Spaughtynere keragh werowance marwarinough kekate warwgh peyaquaugh</i> , Run you then to the King Mawmarynough, and bid him come hither.
<i>Noughmaff</i> , fish.	<i>Utteke, e peya weyack wighwhip</i> , Get you gone, and come again quickly.
<i>Copotone</i> , sturgeon.	<i>Kekaten Pokahontas patiaquagh niugh tanks manotyens neer mowchick rawrenock audowgh</i> , Bid Pokahontas bring hither two little baskets, and I will give her white beads, to make her a chain.
<i>Weghsbaughes</i> , flesh.	
<i>Sawwehone</i> , blood.	
<i>Netoppew</i> , friends.	
<i>Marrapough</i> , enemies.	
<i>Maskapow</i> , the worst of enemies.	
<i>Mawchick chammay</i> , the best of friends.	
<i>Casacunnakack, peya quagh acquaintan uttasantafough?</i> In how many days will there come hither any more English ships?	
Their numbers:	
<i>Necut</i> , 1; <i>Ningh</i> , 2; <i>Nufs</i> , 3; <i>Yowgh</i> , 4;	
<i>Paranske</i> , 5; <i>Comotinch</i> , 6; <i>Toppawofs</i> , 7;	
<i>Nusswash</i> , 8; <i>Kekatawgh</i> , 9; <i>Kaskeke</i> , 10.	
They count no more but by tens, as followeth:	

BOOK III.

CHAP. I.—*The Proceedings and Accidents of the English Colony in Virginia, extracted from the Authors following, by William Simons, Doctor of Divinity.*

IT might be well thought a country so fair as Virginia is, and a people so tractable, would long ere this have been quietly possessed, to the satisfaction of the adventurers, and the eternizing of the memory of those that effected it. But because all the world do see a default, this following treatise shall give satisfaction to all indifferent readers, how the business hath been carried; where, no doubt, they will easily understand and answer to their question, how it came to pass, there was no better speed and success in those proceedings.

Captain Bartholomew Gosnoll, one of the first movers of this plantation, having many years solicited many of his friends, but found small assistance, at last prevailed with some gentlemen, as Captain John Smith, Mr. Edward Maria Wingfield, Mr. Robert Hunt, and divers others, who depended a year upon his projects, but nothing could be effected, till, by their great charge and industry, it came to be apprehended by certain of the nobility, gentry, and merchants, so that His Majesty, by his letters patents, gave commission for establishing councils, to direct here; and to govern, and to execute there. To effect this, was spent another year, and by that, three ships were provided, one of one hundred tons, another of forty, and a pinnace of twenty. The transportation of the company was committed to Captain Christopher Newport, a mariner well practised for the western parts of America. But their orders for government were put in a box, not to be opened, nor the governors known until they arrived in Virginia.

On the 19th of December, 1606, we set sail from Blackwall, but by unprosperous winds were kept six weeks in the sight of England; all which time Mr. Hunt, our preacher, was so weak and sick, that few expected his recovery. Yet although he were but twenty miles from his habitation (the time we were in the Downs), and notwithstanding the stormy weather, nor the scandalous imputations (of some few, little better than atheists, of the greatest rank amongst us) suggested against him, all this could never force from him so much as a seeming desire to leave the business, but preferred the service of God, in so good a voyage, before any affection to contest with his godless foes, whose disastrous designs (could they have prevailed) had even then overthrown the business, so many discontents did then arise, had he not, with the water of patience and his godly exhortations (but chiefly by his true devoted examples) quenched those flames of envy and dissention.

We watered at the Canaries; we traded with the savages at Dominica; three weeks we spent in refreshing ourselves amongst these West India isles; in Guardalupa we found a bath so hot, as in it we boiled pork as well as over the fire. And at a little isle called Monica, we took from the bushes with our hands, near two hogheads full of birds in three or four hours. In Mevis, Mona, and the Virgin isles, we spent some time, where, with a loathsome beast like a crocodile, called a guayn, tortoises, pelicans, parrots, and fishes, we daily feasted. Gone from thence in search of Virginia, the company was not a little discomforted, seeing the mariners had three days passed their reckoning, and found no land, so that Captain Ratliffe (captain of the pinnace) rather desired to bear up the helm to return for England, than make further search. But God, the guide of all good actions, forcing them by an extreme storm to hull all

night, did drive them by his providence to their desired port, beyond all their expectations, for never any of them had seen that coast. The first land they made they called Cape Henry ; where thirty of them recreating themselves on shore, were assaulted by five savages, who hurt two of the English very dangerously. That night was the box opened, and the orders read, in which Bartholomew Gosnell, John Smith, Edward Wingfield, Christopher Newport, John Ratliffe, John Martin, and George Kendall, were named to be the counsel, and to choose a president amongst them for a year, who with the council should govern. Matters of moment were to be examined by a jury, but determined by the major part of the council, in which the president had two voices. Until the 13th of May they sought a place to plant in, then the council was sworn, Mr. Wingfield was chosen president, and an oration made, why Captain Smith was not admitted of the council as the rest.

Now falleth every man to work, the council contrive the fort, the rest cut down trees to make place to pitch their tents ; some provide clapboard to relade the ships, some make gardens, some nets, &c. The savages often visited us kindly. The president's overweening jealousy would admit no exercise at arms, or fortification, but the boughs of trees cast together in the form of a half moon by the extraordinary pains and diligence of Captain Kendall. Newport, Smith, and twenty others, were sent to discover the head of the river : by divers small habitations they passed, in six days they arrived at a town called Powhatan, consisting of some twelve houses, pleasantly seated on a hill ; before it three fertile isles, about it many of their corn fields, the place is very pleasant, and strong by nature ; of this place the prince is called Powhatan, and his people Powhatans ; to this place the river is navigable : but higher within a mile, by reason of the rocks and isles, there is not passage for a small boat ; this they call the falls : the people in all parts kindly treated them, till being returned within twenty miles of James Town, they gave just cause of jealousy, but had God not blessed the discoverers otherwise than those at the fort, there had then been an end of that plantation ; for at the fort, where they arrived the next day, they found seventeen men hurt, and a boy slain by the savages, and had it not chanced a cross bar shot from the ships struck down a bough from a tree amongst them, that caused them to retire, our men had all been slain, being securely all at work, and their arms in dry fats.

Hereupon the president was contented the fort should be pallisadoed, the ordnance mounted, his men armed and exercised, for many were the assaults, and ambuscades of the savages, and our men by their disorderly straggling were often hurt, when the savages by the nimbleness of their heels well escaped. What toil we had, with so small a power to guard our workmen adays, watch all night, resist our enemies, and effect our business, to relade the ships, cut down trees, and prepare the ground to plant our corn, &c. I refer to the reader's consideration. Six weeks being spent in this manner, Captain Newport (who was hired only for our transportation) was to return with the ships. Now Captain Smith, who all this time from their departure from the Canaries was restrained as a prisoner upon the scandalous suggestions of some of the chiefs (envying his repute) who fained he intended to usurp the government, murder the council, and make himself king, that his confederates were dispersed in all the three ships, and that divers of his confederates that revealed it, would affirm it ; for this he was committed as a prisoner : thirteen weeks he remained thus suspected ; and by that time the ships should return, they pretended out of their commiserations, to refer him to the council in England to receive a check, rather than by particularising his designs make him so odious to the world, as to touch his life, or utterly overthrow his reputation. But he so much scorned their charity, and publicly defied the uttermost of their cruelty

cruelty, he wisely prevented their policy, though he could not suppress their envy, yet so well he demeaned himself in this business, as all the company did see his innocence, and his adversaries malice, and those suborned to accuse him, accused his accusers of subornation; many untruths were alleged against him; but being so apparently disproved, begat a general hatred in the hearts of the company against such unjust commanders, that the president was adjudged to give him 200l. so that all he had was seized upon, in part of satisfaction, which Smith presently returned to the store for the general use of the colony. Many were the mischiefs that daily sprung from their ignorant (yet ambitious) spirits, but the good doctrine and exhortation of our preacher Mr. Hunt reconciled them, and caused Captain Smith to be admitted of the council; the next day all received the communion, the day following the savages voluntarily desired peace, and Captain Newport returned for England with news; leaving in Virginia one hundred, the 15th of June 1607. By this observe;

Good men did ne'er their countries ruin bring.

But when evil men shall injuries begin;

Not caring to corrupt and violate

The judgment-seat for their own lucre's sake:

Then look that country cannot long have peace,

Though for the present it have rest and ease.

The names of them that were the first planters, were these following:

Mr. Edward Maria Wingfield
Captain Bartholomew Gosnoll
Captain John Smith
Captain John Ratcliffe
Captain John Martin
Captain George Kendall

} Council.

Mr. Robert Hunt, Preacher
Mr. George Percie
Anthony Gosnoll
George Flower
Captain Gabriell Archer
Robert Fenton
Robert Ford
William Brufter
Edward Harrington
Dru Pickhouse
Thomas Jacob
John Brookes
Ellis Kingston
Thomas Sands
Benjamin Beaf
John Robinson
Thomas Mouton
Eustace Clovill
Stephen Halthrop
Kellam Throgmorton
Edward Morish

} Gent.

Nathaniel Powell
Edward Brown
Robert Behethland
John Penington
Jeremy Alicock
George Walker
Thomas Studley
Richard Crofts
Nicholas Houlgrave
Thomas Webbe
John Waller
John Short
William Tankard
William Smethes
Francis Snarsbrough
Richard Simons
Edward Brookes
Richard Dixon
John Martin
Roger Cooke
Anthony Gosnold
Thomas Wotton, Chirurgeon
John Stevenson
Thomas Gore
Henry Adling
Francis Midwinter
Richard Frith

} Gent.

William

William Laxon
Edward Pifing
Thomas Emry
Robert Small

Carpenters.

John Laydon
William Caffin
George Caffin
Thomas Caffin

William Rodes
William White
Old Edward

Henry Tavin
George Goulding
John Dods
William Johnson
William Unger

Labourers.

James Read, blacksmith,
Jonas Profit, failor,
Thomas Cowper, barber,
William Garret, bricklayer,
Edward Brinto, mason,
William Love, tailor,
Nic. Scot, drummer,
William Wilkinson, chirurgion,

Samuel Collier, boy,
Nat. Pecoock, boy,
James Brumfield, boy,
Richard Mutton, boy,

With divers others to the
number of 100.

CHAP. II.—*What happened till the first Supply.*

BEING thus left to our fortunes, it fortuned that within ten days scarce ten amongst us could either go, or well stand, such extreme weaknes and sickness oppressed us. And thereat none need marvel, if they consider the cause and reason, which was this; whilst the ships stayer, our allowance was somewhat bettered, by a daily proportion of biscuit, which the failors would pilfer to sell, give, or exchange with us, for money, saffrafas, furs, or love. But when they departed, there remained neither tavern, beer-house, nor place of relief, but the common kettle. Had we been as free from all sins as gluttony and drunkenness, we might have been canonized for faints; but our president would never have been admitted, for ingrossing to his private, oatmeal, sack, oil, aquavita, beef, eggs, or what not, but the kettle; that indeed he allowed equally to be distributed, and that was half a pint of wheat, and as much barley boiled with water for a man a day, and this having fried some twenty-six weeks in the ship's hold, contained as many worms as grains; so that we might truly call it rather so much bran than corn; our drink was water, our lodgings castles in the air: with this lodging and diet, our extreme toil in bearing and planting pallisadoes, so strained and bruised us, and our continual labour in the extremities of the heat had so weakened us, as were cause sufficient to have made us as miserable in our native country, or any other place in the world. From May to September, those that escaped, lived upon sturgeon, and sea-crabs; fifty in this time we buried: the rest seeing the president's projects to escape these miseries in our pinnace by flight (who all this time had neither felt want nor sickness) so moved our dead spirits, as we deposed him; and established Ratcliffe in his place (Gosnoll being dead), Kendall deposed, Smith newly recovered, Martin and Ratcliffe was by his care preserved and relieved, and the most of the soldiers recovered, with the skilful diligence of Mr. Thomas Wotton our chirurgion-general. But now was all our provision spent, the sturgeon gone, all helps abandoned, each hour expecting the fury of the savages; when God, the patron of all good endeavours, in that desperate extremity so changed the hearts of the savages, that they brought such plenty of their fruits and provision as no man wanted.

And now where some affirmed it was ill done of the council to send forth men so badly provided, this incontradictable reason will shew them plainly they are too ill advised to nourish such conceits; first, the fault of our going was our own: what could be thought fitting or necessary we had; but what we should find, or want, or where we should be, we were all ignorant, and supposing to make our passage in two months, with victuals to live, and the advantage of the spring to work; we were at sea five months, where we both spent our victuals and lost the opportunity of the time and season to plant, by the unskilful presumption of our ignorant transporters, that understood not at all what they undertook.

Such actions have ever since the world's beginning been subject to such accidents; and every thing of worth is found full of difficulties; but nothing so difficult as to establish a commonwealth so far remote from men and means, and where men's minds are so untoward as neither do well themselves, nor suffer others. But to proceed.

The new president and Martin, being little beloved, of weak judgment in dangers, and less industry in peace, committed the managing of all things abroad to Captain Smith, who, by his own example, good words, and fair promises, set some to mow, others to bind thatch, some to build houses, others to thatch them, himself always bearing the greatest task for his own share; so that in short time, he provided most of them lodgings, neglecting any for himself. This done, seeing the savages superfluity begin to decrease (with some of his workmen) shipped himself in the shallop to search the country for trade. The want of the language, knowledge to manage his boat without fails, the want of a sufficient power, (knowing the multitude of the savages) apparel for his men, and other necessities, were infinite impediments, yet no discouragement. Being but six or seven in company, he went down the river to Kecoughtan, where at first they scorned him, as a famished man, and would in derision offer him a handful of corn, a piece of bread, for their swords and muskets, and such like proportions also for their apparel. But seeing by trade and courtesy there was nothing to be had, he made bold to try such conclusions as necessity enforced, though contrary to his commission, let fly his muskets, ran his boat on shore, whereat they all fled into the woods. So marching towards their houses, they might see great heaps of corn, much ado he had to restrain his hungry soldiers from present taking of it, expecting (as it happened) that the savages would assault them, as not long after they did with a most hideous noise: sixty or seventy of them, some black, some red, some white, some party-coloured, came in a square order, singing and dancing out of the woods, with their okee (which was an idol made of skins, stuffed with moss, all painted and hung with chains and copper) borne before them; and in this manner being well armed with clubs, targets, bows and arrows, they charged the English, that so kindly received them with their muskets loaden with pistol shot, that down fell their god, and divers lay sprawling on the ground, the rest fled again to the woods, and ere long sent one of their quiyoughkasoucks to offer peace, and redeem their okee. Smith told them, if only six of them would come unarmed and load his boat, he would not only be their friend, but restore them their okee, and give them beads, copper, and hatchets besides, which, on both sides, was to their contents performed; and then they brought him venison, turkies, wild fowl, bread, and what they had, singing and dancing in sign of friendship till they departed. In his return he discovered the town and country of Warrawoyack.

Thus God, unboundless by his power,
Made them thus kind, would us devour.

Smith perceiving (notwithstanding their late misery) not any regarded but from hand to mouth (the company being well recovered), caused the pinnace to be provided with things fitting to get provision for the year following; but in the interim he made three or four journies, and discovered the people of Chickahamania: yet what he carefully provided the rest carelessly spent. Wingfield and Kendall living in disgrace, seeing all things at random in the absence of Smith, the company's dislike of their president's weakness, and their small love to Martin's never-mending sickness, strengthened themselves with the sailors, and other confederates, to regain their former credit and authority, or at least, such means aboard the pinnace, (being fitted to sail as Smith had appointed, for trade) to alter her course and to go for England. Smith unexpectedly returning had the plot discovered to him, much trouble he had to prevent it, till with store of saker and musket shot he forced them to stay or sink in the river, which action cost the life of Captain Kendall. These brawls are so disgustful, as some will say they were better forgotten; yet all men of good judgment will conclude, it were better their baseness should be manifest to the world than the business bear the scorn and shame of their excused disorders. The president and Captain Archer not long after intended also to have abandoned the country, which project also was curbed and suppressed by Smith. The Spaniard never more greedily desired gold than he victuals, nor his soldiers more to abandon the country, than he to keep it. But finding plenty of corn in the river of Chickahamania, where hundreds of savages in divers places stood with baskets expecting his coming. And now the winter approaching, the rivers became so covered with swans, geese, ducks, and cranes, that we daily feasted with good bread, Virginia peas, pumpions, and putchamins, fish, fowl, and divers sorts of wild beasts as fat as we could eat them, so that none of our tustaffaty humourists desired to go for England. But our comedies never endured long without a tragedy; some idle exceptions being muttered against Captain Smith, for not discovering the head of Chickahamania river, and taxed by the council to be too slow in so worthy an attempt. The next voyage he proceeded so far, that with much labour by cutting of trees asunder he made his passage, but when his barge could pass no further, he left her in a broad bay out of danger of shot, commanding none should go ashore till his return; himself with two English and two savages went up higher in a canoe, but he was not long absent; but his men went ashore, whose want of government gave both occasion and opportunity to the savages to surprise one George Cassen, whom they slew, and much failed not to have cut off the boat and all the rest. Smith little dreaming of that accident, being got to the marshes at the river's head, twenty miles in the desert, had his two men slain (as is supposed) sleeping by the canoe, whilst himself, by fowling, sought them victuals; who finding he was beset with two hundred savages, two of them he slew, still defending himself with the aid of a savage his guide, whom he bound to his arm with his garters, and used him as a buckler, yet he was shot in his thigh a little, and had many arrows that stuck in his cloaths, but no great hurt, till at last they took him prisoner. When this news came to James Town, much was their sorrow for his loss, few expecting what ensued. Six or seven weeks those barbarians kept him prisoner, many strange triumphs and conjurations they made of him, yet he so demeaned himself amongst them, as he not only diverted them from surprising the fort, but procured his own liberty, and got himself and his company such estimation amongst them, that those savages admired him more than their own quiyouckasoucks. The manner how they used and delivered him, is as followeth.

The savages having drawn from George Cassen whither Captain Smith was gone, prosecuting that opportunity they followed him with three hundred bow-men, conducted

by the King of Pamaunkee, who, in divisions, searching the turnings of the river, found Robinson and Emry by the fire-side, those they shot full of arrows and flew. Then finding the captain, as is said, that used the savage that was his guide as his shield (three of them being slain and divers others so galled), all the rest would not come near him. Thinking thus to have returned to his boat, regarding them as he marched more than his way, slipped up to the middle in an oozy creek, and his savage with him; yet durst they not come to him, till being near dead with cold he threw away his arms; then according to their composition, they drew him forth and led him to the fire, where his men were slain: diligently they chafed his benumbed limbs. He demanding for their captain, they shewed him Opechankanough, King of Pamaunkee, to whom he gave a round ivory double compass dial. Much they marvelled at the playing of the fly and needle, which they could see so plainly, and yet not touch it, because of the glass that covered them. But when he demonstrated by that globe-like jewel, the roundness of the earth and skies, the sphere of the sun, moon, and stars, and how the sun did chase the night round about the world continually, the greatness of the land and sea, the diversity of nations, variety of complexions, and how we were to them antipodes, and many other such like matters, they all stood as amazed with admiration. Notwithstanding, within an hour after they tied him to a tree, and as many as could stand about him prepared to shoot him, but the King holding up the compass in his hand, they all laid down their bows and arrows, and in a triumphant manner led him to Orapaks, where he was after their manner kindly feasted and well used.

Their order in conducting him was thus: drawing themselves all in file, the King in the midst had all their pieces and swords borne before him. Captain Smith was led after him by three great savages, holding him fast by each arm; and on each side six went in file with their arrows nocked. But arriving at the town (which was but only thirty or forty hunting-houses made of mats, which they remove as they please, as we our tents) all the women and children staring to behold him; the soldiers first, all in file, performed the form of a biffone so well as could be, and on each flank officers, as serjeants, to see them keep their order. A good time they continued this exercise, and then cast themselves in a ring, dancing in such several postures, and singing and yelling out such hellish notes and screeches; being strangely painted, every one his quiver of arrows, and at his back a club; on his arm a fox or an otter's skin, or some such matter for his vambrace; their heads and shoulders painted red, with oil and pocones mingled together, which scarlet-like colour made an exceeding handsome shew; his bow in his hand, and the skin of a bird, with her wings abroad dried, tied on his head, a piece of copper, a white shell, a long feather, with a small rattle growing at the tails of their snakes, tied to it, or some such like toy. All this while Smith and the King stood in the midst, guarded, as before is said, and after three dances they all departed. Smith they conducted to a long house, where thirty or forty tall fellows did guard him, and ere long more bread and venison was brought him than would have served twenty men; I think his stomach at that time was not very good; what he left they put in baskets and tied over his head. About midnight they set the meat again before him; all this time not one of them would eat a bit with him, till the next morning they brought him as much more, and then did they eat all the old, and reserved the new as they had done the other, which made him think they would eat him to eat him: yet in this desperate estate to defend him from the cold, one Maocassater brought him his gown, in requital of some beads and toys Smith had given him at his first arrival in Virginia.

Two days after a man would have slain him (but that the guard prevented it) for the

the death of his son, to whom they conducted him, to recover the poor man then breathing his last. Smith told them, that at James Town he had a water would do it, if they would let him fetch it; but they would not permit that, but made all the preparations they could to assault James Town, craving his advice, and for recompence he should have life, liberty, land, and women. In part of a table-book he writ his mind to them at the fort, what was intended, how they should follow that direction to affright the messengers, and without fail send him such things as he writ for, and an inventory with them. The difficulty and danger, he told the savages, of the mines, great guns, and other engines, exceedingly affrighted them; yet according to his request, they went to James Town, in as bitter weather as could be of frost and snow, and within three days returned with an answer.

But when they came to James Town, seeing men fall out, as he had told them they would, they fled; yet in the night they came again to the same place where he had told them they should receive an answer, and such things as he had promised them, which they found accordingly, and with which they returned with no small expedition, to the wonder of them all that heard it, that he could either divine, or the paper could speak; then they led him to the Youthtanunds, the Mattapanients, the Payankatanks, the Nantaughtacunds, and Onawmanients, upon the rivers of Raphanock and Patawomek, over all those rivers, and back again by divers other several nations, to the King's habitation at Pamaunkee, where they entertained him with most strange and fearful conjurations,

As if near led to hell,
Amongst the devils to dwell.

Not long after, early in a morning, a great fire was made in a long house, and a mat spread on the one side as on the other; on the one they caused him to sit, and all the guard went out of the house, and presently came skipping in a great grim fellow, all painted over with coal mingled with oil, and many snakes and weasels skins stuffed with moss, and all their tails tied together, so as they met on the crown of his head in a tassel, and round about the tassel was as a coronet of feathers, the skins hanging round about his head, back, and shoulders, and in a manner covered his face, with a hellish voice, and a rattle in his hand. With most strange gestures and passions he began his invocation, and environed the fire with a circle of meal; which done, three more such like devils came rushing in with the like antic tricks, painted half black, half red; but all their eyes were painted white, and some red strokes like mustachoes along their cheeks: round about him those fiends danced a pretty while, and then came in three more as ugly as the rest, with red eyes, and white strokes over their black faces: at last they all sat down right against him, three of them on the one hand of the chief priest, and three on the other. Then all with their rattles began a song, which ended, the chief priest laid down five wheat corns; then straining his arms and hands with such violence that he sweat, and his veins swelled, he began a short oration; at the conclusion they all gave a short groan, and then laid down three grains more. After that they began their song again, and then another oration, ever laying down so many corns as before, till they had twice encircled the fire; that done, they took a bunch of little sticks prepared for that purpose, continuing still their devotion, and at the end of every song and oration they laid down a stick betwixt the divisions of corn. Till night neither he nor they did either eat or drink, and then they feasted merrily, with the best provisions they could make. Three days they used this ceremony, the meaning whereof they told him was to know if he intended them well

well or no. The circle of meal signified their country, the circles of corn the bounds of the sea, and the sticks his country. They imagined the world to be flat and round, like a trencher, and they in the midst. After this they brought him a bag of gunpowder, which they carefully preserved till the next spring, to plant as they did their corn, because they would be acquainted with the nature of that seed. Opicahapam, the King's brother, invited him to his house, where, with as many platters of bread, fowl, and wild beasts, as did environ him, he bid him welcome; but not any of them would eat a bit with him, but put up all the remainder in baskets. At his return to Opechancanoughs, all the King's women, and their children, flocked about him for their parts, as a due by custom, to be merry with such fragments.

But his waking mind in hideous dreams did oft see wondrous shapes
Of bodies strange, and huge in growth, and of stupendous makes.

At last they brought him to Meronomoco, where was Powhatan their emperor. Here more than two hundred of those grim courtiers stood wondering at him, as he had been a monster, till Powhatan and his train had put themselves in their greatest braveries. Before a fire, upon a seat like a bedstead, he sat covered with a great robe, made of rarowcun skins, and all the tails hanging by. On either hand did sit a young wench of sixteen or eighteen years, and along on each side the house two rows of men, and behind them as many women, with all their heads and shoulders painted red; many of their heads bedecked with the white down of birds, but every one with something, and a great chain of white beads about their necks. At his entrance before the King all the people gave a great shout. The Queen of Appamatuck was appointed to bring him water to wash his hands, and another brought him a bunch of feathers, instead of a towel to dry them. Having feasted them after the best barbarous manner they could, a long consultation was held; but the conclusion was, two great stones were brought before Powhatan; then as many as could laid hands on him, dragged him to them, and thereon laid his head, and being ready with their clubs to beat out his brains, Pocahontas, the King's dearest daughter, when no intreaty could prevail, got his head in her arms, and laid her own upon his to save him from death: whereat the Emperor was contented he should live to make him hatchets, and her bells, beads, and copper, for they thought him as well of all occupations as themselves; for the King himself will make his own robes, shoes, bows, arrows, pots; plant, hunt, or do any thing as well as the rest.

They say, he bore a pleasant shew;
But sure his heart was sad;
For who can pleasant be, and rest,
That lives in fear and dread:
And having life suspected, doth
It still suspected lead?

Two days after Powhatan having disguised himself in the most fearful manner he could, caused Captain Smith to be brought forth to a great house in the woods, and there, upon a mat by the fire, to be left alone: not long after, from behind a mat that divided the house, was made the most doleful noise he ever heard; then Powhatan, more like a devil than a man, with some two hundred more as black as himself, came unto him, and told him now they were friends, and presently he should go to James Town, to send him two great guns and a grindstone, for which he would give him the country of the Capehowosick, and for ever esteem him as his son Nantauquoud. So to James Town, with twelve guides, Powhatan sent him. That night they

they quartered in the woods, he still expecting (as he had done all this long time of his imprisonment) every hour to be put to one death or other, for all their feasting. But almighty God (by his divine Providence) had mollified the hearts of those stern barbarians with compassion. The next morning betimes they came to the fort, where Smith having used the savages with what kindness he could, he shewed Rawhunt, Powhatan's trusty servant, two demi-culverines and a millstone to carry Powhatan. They found them somewhat too heavy; but when they did see him discharge them, being loaded with stones, among the boughs of a great tree loaded with icicles, the ice and branches came so tumbling down, that the poor savages ran away half dead with fear. But at last we regained some conference with them, and gave them such toys, and sent to Powhatan, his women, and children such presents, as gave them in general full content. Now in James Town they were all in combustion, the strongest preparing once more to run away with the pinnace, which, with the hazard of his life, with sakre, falcon, and musket-shot, Smith forced now the third time to stay or sink. Some no better than they should be, had plotted with the president the next day to have put him to death by the Levitical law, for the lives of Robinson and Emry, pretending the fault was his that had led them to their ends; but he quickly took such order with such lawyers, that he laid them by the heels, till he sent some of them prisoners for England. Now ever once in four or five days, Pocahontas, with her attendants, brought him so much provision that saved so many of their lives, that else for all this had starved with hunger.

Thus from numb death our good God sent relief,
The sweet assuager of all other grief.

His relation of the plenty he had seen, especially at Werawocomoco, and of the state and bounty of Powhatan (which till that time was unknown) so revived their dead spirits (especially the love of Pocahontas) as all men's fear was abandoned. Thus you may see what difficulties still crossed any good endeavour, and the good success of the business being thus brought to the very period of destruction, yet you see by what strange means God hath still delivered it. As for the insufficiency of them admitted in commission, that error could not be prevented by the electors, there being no other choice, and all strangers to each other's education, qualities, or disposition: and if any deem it a shame to our nation to have any mention made of those enormities, let them peruse the histories of the Spaniards' discoveries and plantations, where they may see how many mutinies, disorders, and dissensions have accompanied them, and crossed their attempts; which being known to be particular men's offences, doth take away the general scorn and contempt which malice, presumption, covetousness, or ignorance might produce, to the scandal and reproach of those whose actions and valiant resolutions deserve a more worthy respect.

Now whether it had been better for Captain Smith to have concluded with any of those several projects, to have abandoned the country, with some ten or twelve of them, who were called the better sort, and have left Mr. Hunt, our preacher, Mr. Anthony Gosnoll, a most honest, worthy, and industrious gentleman, Mr. Thomas Wotton, and some twenty-seven others of his countrymen, to the fury of the savages, famine, and all manner of mischiefs and inconveniencies (for they were but forty in all to keep possession of this large country), or starve himself with them for company, for want of lodging; or but adventuring abroad to make them provision, or by his opposition to preserve the action, and save all their lives, I leave to the censure of all honest men to consider. But

We men imagine in our jollity,
That 'tis all one, or good or bad to be ;
But then anon we alter this again,
If happily we feel the sense of pain ;
For then we're turn'd into a mourning vein.

Written by THOMAS STUDLEY, the first Cape merchant in Virginia,
ROBERT FENTON EDWARD HARRINGTON, and I. S.

CHAP. III.—*The Arrival of the first Supply, with their Proceedings, and the Ship's Return.*

ALL this time our care was not so much to abandon the country, but the treasurer and council in England were as diligent and careful to supply us ; two good ships they sent us, with near a hundred men, well furnished with all things could be imagined necessary, both for them and us ; the one commanded by Captain Newport, the other by Captain Francis Nelson, an honest man, and an expert mariner ; but such was the leewardness of his ship, (that though he was within the sight of Cape Henry) by stormy contrary winds was he forced so far to sea that the West Indies was the next land for the repair of his masts, and relief of wood and water ; but Newport got in, and arrived at James Town, not long after the redemption of Captain Smith, to whom the savages, as is said, every other day repaired with such provisions that sufficiently did serve them from hand to mouth ; part always they brought him as presents from their Kings or Pocahontas ; the rest he, as their market clerk, set the price himself how they should sell : so he had enchanted these poor souls, being their prisoner ; and now Newport, whom he called his father, arriving, near as directly as he foretold, they esteemed him as an oracle, and had them at that submission he might command them what he listed. That God that created all things, they knew, he adored for his God ; they would also in their discourses term the God of Captain Smith.

Thus the Almighty was the bringer on,
The guide, path, term, all which was God alone.

But the president and council so much envied his estimation among the savages, (though we all in general equally participated with him of the good thereof,) that they wrought it into the savages' understandings, (by their great bounty in giving four times more for their commodities than Smith appointed,) that their greatness and authority as much exceeded his, as their bounty and liberality. Now the arrival of this first supply so overjoyed us, that we could not devise too much to please the mariners. We gave them liberty to truck or trade at their pleasures ; but in a short time it followed, that could not be had for a pound of copper which before was sold us for an ounce : thus ambition and sufferance cut the throat of our trade, but confirmed their opinion of the greatness of Captain Newport, (wherewith Smith had possessed Powhatan,) especially by the great presents Newport often sent him, before he could prepare the pinnace to go and visit him ; so that this great savage desired also to see him. A great coil there was to set him forward. When he went, he was accompanied with Captain Smith, and Mr. Scrivener, a very wise understanding gentleman, newly arrived, and admitted of the council, with thirty or forty chosen men for their guard. Arriving at Werowocomoco, Newport's conceit of this great savage bred many doubts and suspicions of treacheries, which Smith to make appear

appear was needless, with twenty men well appointed, undertook to encounter the worst that could happen : knowing

All is but one and self-same hand, that thus
Both one while scourgeth, and that helpeth us.

Nathaniell Powell,
Robert Behethland,
Michell Phittiplace,
William Phittiplace,
Anthony Goffnell,
Richard Wyffin, } Gent.

John Taverner,
William Dyer,
Thomas Coe,
Thomas Hope,
Anas Todkill, } Gent.

These, with nine others (whose names I have forgotten), coming ashore, landed amongst a many of creeks, over which they were to pass such poor bridges, only made of a few cratches thrust in the oke, and three or four poles laid on them, and at the end of them the like, tied together only with barks of trees, that it made them much suspect those bridges were but traps, which caused Smith to make divers savages go over first, keeping some of the chief as hostage till half his men were passed to make a guard for himself and the rest. But finding all things well, by two or three hundred savages they were kindly conducted to their town, where Powhatan strained himself to the utmost of his greatness to entertain them, with great shouts of joy, orations of protestations, and with the most plenty of victuals he could provide to feast them; sitting upon his bed of mats, his pillow of leather embroidered, (after their rude manner, with pearl and white beads,) his attire a fair robe of skins, as large as an Irish mantle, at his head and feet a handsome young woman, on each side of his house sat twenty of his concubines, their heads and shoulders painted red, with a great chain of white beads about each of their necks. Before those sat his chiefest men in like order in his arbour-like house, and more than forty platters of fine bread stood as a guard in two files on each side the door; four or five hundred people made a guard behind them for our passage; and proclamation was made, none upon pain of death to presume to do us any wrong or discourtesy. With many pretty discourses to renew their old acquaintance, this great king and our captain spent the time, till the ebb left our barge aground. Then renewing their feasts with feats, dancing and singing, and such like mirth, we quartered that night with Powhatan. The next day Newport came ashore, and received as much content as those people could give him. A boy named Thomas Savage was then given unto Powhatan, whom Newport called his son, for whom Powhatan gave him Namontack his trusty servant, and one of a shrewd, subtle capacity. Three or four days more we spent in feasting, dancing, and trading, wherein Powhatan carried himself so proudly, yet discreetly, (in his savage manner,) as made us all admire his natural gifts, considering his education. As scorning to trade as his subjects did, he bespake Newport in this manner.

Captain Newport, it is not agreeable to my greatness, in this pedling manner to trade for trifles, and I esteem you also a great Werowance; therefore lay me down all your commodities together, what I like I will take, and in recompence give you what I think fitting their value. Captain Smith being our interpreter, regarding Newport as his father, knowing best the disposition of Powhatan, told us his intent was but only to cheat us; yet Captain Newport thinking to out-brave this savage in ostentation of greatness, and so to bewitch him with his bounty, as to have what he listed; it so happened that Powhatan having his desire, valued his corn at such a rate, that I think

it better cheap in Spain, for we had not four bushels for that we expected to have twenty hogheads. This bred some unkindness between our two captains; Newport seeking to please the unsatiable desire of the savage, Smith to cause the savage to please him; but smothering his distaste to avoid the savages' suspicion, glanced in the eyes of Powhatan many trifles, who fixed his humour upon a few blue beads. A long time he importunately desired them, but Smith seemed so much the more to affect them, as being composed of a most rare substance of the colour of the skies, and not to be worn but by the greatest kings in the world. This made him half mad to be the owner of such strange jewels, so that ere we departed, for a pound or two of blue beads, he brought over my king for two or three hundred bushels of corn, yet parted good friends. The like entertainment we found of Opechankanough, King of Pamaunkee, whom also he in like manner fitted (at the like rates) with blue beads, which grew, by this means, of that estimation, that none durst wear any of them but their great kings, their wives and children. And so we returned all well to James Town, where this new supply being lodged with the rest, accidentally fired their quarters and so the town, which being but thatched with reeds, the fire was so fierce as it burnt their pallisados (though eight or ten yards distant), with their arms, bedding, apparel, and much private provision; good Mr. Hunt, our preacher, lost all his library and all he had but the cloaths on his back, yet none never heard him repine at his loss. This happened in the winter in that extreme frost, 1607. Now though we had victuals sufficient, I mean only of oatmeal, meal, and corn, yet the ship staying fourteen weeks when she might as well have been gone in fourteen days, spent a great part of that, and near all the rest that was sent to be landed. When they departed what their discretion could spare us, to make a little poor meal or two, we called feasts, to relish our mouths, of each somewhat they left us, yet I must confess, those that had either money, spare cloaths, credit to give bills of payment, gold rings, furs, or any such commodities, were ever welcome to this removing tavern, such was our patience to obey such vile commanders, and buy our own provisions at fifteen times the value, suffering them feast (we bearing the charge) yet must not repine, but fast, lest we should incur the censure of factious and seditious persons: and then leakage, ship-rats, and other casualties occasioned them loss, but the vessels and remnants (for totals) we were glad to receive with all our hearts to make up the account, highly commending their Providence for preserving that, lest they should discourage any more to come to us. Now for all this plenty our ordinary was but meal and water, so that this great charge little relieved our wants, whereby with the extremity of the bitter cold frost and those defects, more than half of us died; I cannot deny but both Smith and Scrivener did their best to amend what was amiss, but with the president went the major part, that their horns were too short. But the worst was our gilded refiners with their golden promises made all men their slaves in hope of recompences; there was no talk, no hope, no work, but dig gold, wash gold, refine gold, load gold, such a bruit of gold, that one mad fellow desired to be buried in the sands lest they should by their art make gold of his bones: little need there was and less reason the ship should stay, their wages run on, our victuals consume fourteen weeks, that the mariners might say, they did help to build such a golden church that we can say the rain washed near to nothing in fourteen days. Were it that Captain Smith would not applaud all those golden inventions, because they admitted him not to the sight of their trials nor golden consultations, I know not; but I have heard him often question with Captain Martin and tell him, except he could shew him a more substantial trial, he was not enamoured with their dirty skill, breathing out these and many other passions, never any thing did
more

more torment him, than to see all necessary business neglected, to fraught such a drunken ship with so much gilded dirt. Till then we never accounted Captain Newport a refiner, who being ready to set sail for England, and we not having any use of parliaments, plays, petitions, admirals, recorders, interpreters, chronologers, courts of plea, nor justices of peace, sent Mr. Wingfield and Captain Archer home with him, that had engrossed all those titles, to seek some better place of employment.

Oh cursed gold, those hunger-starved movers,
To what misfortunes leadest thou all those lovers ;
For all the China wealth, nor Indies, can
Suffice the mind of avaricious man.

CHAP. IV. — *The Arrival of the Phœnix ; her Return ; and other Accidents.*

THE authority now consisting in Captain Martin, and the still sickly president, the sale of the stores' commodities maintained his estate, as an inheritable revenue. The spring approaching, and the ship departing, Mr. Scrivener and Captain Smith divided betwixt them the rebuilding James Town ; the repairing our pallisadoes ; the cutting down trees ; preparing our fields ; planting our corn, and to rebuild our church, and recover our store-house. All men thus busy at their several labours, Mr. Nelson arrived with his lost Phoenix ; lost (I say) for that we all deemed him lost. Landing safely all his men, (so well he had managed his ill hap,) causing the Indian isles to feed his company, that his victuals, to that we had gotten, as is said before, was near after our allowance sufficient for half a year. He had not any thing but he freely imparted it, which honest dealing (being a mariner) caused us to admire him : we would not have wished more than he did for us. Now to reload this ship with some good tidings, the president (not holding it stood with the dignity of his place to leave the fort) gave orders to Captain Smith to discover and search the commodities of the Monacans country beyond the falls. Sixty able men was allotted them, the which, within six days, Smith had so well trained to their arms and orders, that they little feared with whom they should encounter : yet so unseasonable was the time, and so opposite was Captain Martin to any thing, but only to freight his ship also with this phantastical gold, as Captain Smith rather desired to reload her with cedar, (which was a present dispatch) than either with dirt, or the hopes and reports of an uncertain discovery, which he would perform when they had less charge and more leisure. But,

The God of Heaven, he easily can
Immortalise a mortal man,
With glory and with shame :
The same God e'en as easily may,
Afflict a mortal man, I say,
With sorrow and with shame.

Whilst the conclusion was a resolving, this happened.

Powhatan (to express his love to Newport) when he departed, presented him with twenty turkies, conditionally to return him twenty swords, which immediately was sent him ; now after his departure he presented Captain Smith with the like luggage, but not finding his humour obeyed in not sending such weapons as he desired, he caused his people with twenty devices to obtain them. At last by ambuscades at our very ports they would take them perforce, surprise us at work, or any way ; which was so long permitted, they became so insolent there was no rule ; the command from England was

so strait not to offend them, as our authority-bearers (keeping their houses) would rather be any thing than peace-breakers. This charitable humour prevailed, till well it chanced they meddled with Captain Smith, who without farther deliberation gave them such an encounter, as some he so hunted up and down the isle, some he so terrified with whipping, beating, and imprisonment, as for revenge they surprized two of our foraging disorderly soldiers, and having assembled their forces, boldly threatened at our ports to force Smith to re-deliver seven savages, which for their villanies he detained prisoners, or we were all but dead men. But to try their fury, he sallied out amongst them, and in less than an hour, he so hampered their insolence, they brought them his two men, desiring peace without any further composition for their prisoners. Those he examined, and caused them all to believe, by several vollies of shot, one of their companions was shot to death because they would not confess the intents and plotters of those villanies. And thus they all agreed in one point, they were directed only by Powhatan to obtain him our weapons, to cut our own throats, with the manner where, how, and when, which we plainly found most true and apparent: yet he sent his messengers, and his dearest daughter Pocahontas with presents to excuse him of the injuries done by some rash untoward captains his subjects, desiring their liberties for this time, with the assurance of his love for ever. After Smith had given the prisoners what correction he thought fit, used them well a day or two after, and then delivered them Pocahontas, for whose sake only he fained to have saved their lives, and gave them liberty. The patient council, that nothing would move to war with the savages, would gladly have wrangled with Captain Smith for his cruelty, yet none was slain to any man's knowledge, but it brought them in such fear and obedience as his very name would sufficiently affright them; where before we had sometime peace and war twice in a day, and very seldom a week, but we had some treacherous villainy or other.

The freight of this ship being concluded to be cedar, by the diligence of the master, and Captain Smith, she was quickly reloaded: Mr. Scrivener was neither idle nor slow to follow all things at the fort; the ship being ready to set sail, Captain Martin being always very sickly, and unserviceable, and desirous to enjoy the credit of his supposed art of finding the golden mine, was most willingly admitted to return for England; for

He hath not fill'd his lap,
That still doth hold it open.

From the writings of THOMAS STUDLEY, and ANAS TODKIL.

Their names that were landed in this supply.

Mathew Scrivener, appointed to be one of the council.

Michael Phittiplace

William Phittiplace

Ralph Morton

Richard Wyffing

John Taverner

William Cantrell

Robert Barnes

Richard Fetherstone

George Hill

George Pretty

Nathaniel Caufy

Peter Pory

Gent.

Robert Cutler

Michael Sicklemore

William Bentley

Thomas Coe

Doctor Ruffel

Jeffrey Abbot

Edward Gurgana

Richard Worley

Timothy Leeds

Richard Killingbeck

William Spence

Richard Prodger

Gent.

Richard

Richard Pots
Richard Mullinax
William Bayley
Francis Perkins
John Harper
George Forest
John Nichols
William Grivell

Gent.

Thomas Hope
William Ward
John Powell
William Yong
William Beckwith
Lawrence Towtales

Taylors.

Thomas Field
John Harford

Apothecaries.

Raymond Goodison
William Simons
John Spearman
Richard Bristow
William Perce
James Watkins
John Bouth
Christopher Rods
Richard Burket
James Burre
Nicholas Ven
Francis Perkins
Richard Gradon
Rawland Nelstrop
Richard Savage
Thomas Savage
Richard Milmer
William May
Vere
Michaell
Bishop Wiles

Labourers.

Daniel Stallings, jeweller,
William Dawson, a refiner,
Abram Ranfack, a refiner,
Wm. Johnson, a goldsmith,
Peter Keffer, a gunsmith,
Robert Alberton, a perfumer,
Richard Belfield, a goldsmith,
Post Ginnat, a chirurgeon,
John Lewes, a cooper,
R. Cotton, tobacco-pipe-maker,
Richard Dole, a blacksmith.

And divers others to the number
of one hundred and twenty.

CHAP. V.—*The Accidents that happened in the Discovery of the Bay of Chesapeak.*

THE prodigality of the president's state went so deep into our small store, that Smith and Scrivener tied him and his parasites to the rules of proportion: but now Smith being to depart, the president's authority so overswayed the discretion of Mr. Scrivener, that our store, our time, our strength and labours were idly consumed to fulfil his fantasies. The second of June 1608, Smith left the fort to perform his discovery with this company:

Walter Russell, doctor of physick.
Ralfe Murton
Thomas Momford
William Cantrill
Richard Fetherston
James Burne
Michell Sicklemore

Gent.

Jonas Profit
Anas Todkill
Robert Small
James Watkins
John Powell
James Read
Richard Keale

Soldiers.

These

These being in an open barge near three tons burthen, leaving the Phoenix at Cape Henry, they crossed the bay to the eastern shore, and fell with the isles called Smith's Isles, after our captain's name. The first people we saw were two grim and stout savages upon Cape Charles, with long poles like lavelings, headed with bone; they boldly demanded what we were, and what we would; but after many circumstances they seemed very kind, and directed us to Accomack, the habitation of their werowance, where we were kindly intreated. This king was the comeliest, proper, civil savage we encountered. His country is a pleasant fertile clay soil, some small creeks; good harbours for small barks, but not for ships. He told us of a strange accident lately happened to him, and it was, two children being dead, some extreme passions, or dreaming visions, phantasies, or affection, moved their parents again to revisit their dead carcases, whose benumbed bodies reflected to the eyes of the beholders such delightful countenances, as though they had regained their vital spirits. This, as a miracle, drew many to behold them, all which being a great part of his people, not long after died, and but few escaped. They spake the language of Powhatan, wherein they made such descriptions of the bay isles, and rivers, that often did us exceeding pleasure. Passing along the coast, searching every inlet and bay, fit for harbours and habitations. Seeing many isles in the midst of the bay, we bore up for them; but ere we could obtain them, such an extreme gust of wind, rain, thunder, and lightening happened, that with great danger, we escaped the unmerciful raging of that ocean-like water. The highest land on the main, yet it was but low, we called Keale's Hill, and those uninhabited isles, Russels Isles. The next day, searching them for fresh water, we could find none, the defect whereof forced us to follow the next eastern channel, which brought us to the river of Wighcomoco. The people, at first, with great fury seemed to assault us, yet at last, with songs and dances and much mirth, became very tractable; but searching their habitations for water, we could fill but three barricoes, and that such puddle, that never till then we ever knew the want of good water: we digged and searched in many places, but before two days were expired, we would have refused two barricoes of gold for one of that puddle water of Wighcomoco. Being past these isles, which are many in number, but all nought for habitation, falling with a high land upon the main, we found a great pond of fresh water, but so exceeding hot, we supposed it some bath; that place we called Point Ployer, in honour of that most honourable house of Moulsey, in Britain, that in an extreme extremity once relieved our captain. From Wighcomoco to this place, all the coast is low broken isles of Morap, growing a mile or two in breadth, and ten or twelve in length, good to cut for hay in summer, and to catch fish and fowl in winter; but the land beyond them is all covered over with wood, as is the rest of the country.

Being thus refreshed in crossing over from the main to other isles, we discovered the wind and waters so much increased with thunder, lightning, and rain, that our mast and sail blew overboard, and such mighty waves overracked us in that small barge, that with great labour we kept her from sinking, by freeing out the water. Two days we were forced to inhabit these uninhabited isles, which for the extremity of gusts, thunder, rain, storms, and ill weather, we called Limbo. Repairing our sail with our shirts, we set sail for the main, and fell with a pretty convenient river on the east called Cuskarawack; the people ran, as amazed, in troops from place to place, and divers got into the tops of trees; they were not sparing of their arrows, nor the greatest passion they could express of their anger. Long they shot, we still riding at anchor, without their reach, making all the signs of friendship we could. The next day, they came unarmed, with every one a basket, dancing in a ring, to draw us on shore; but

feeling there was nothing in them but villainy, we discharged a volley of muskets, charged with pistol shot, whereat they all lay tumbling on the ground, creeping some one way, some another, into a great cluster of reeds hard by, where their companies lay in ambushado. Towards the evening, we weighed, and approaching the shore, discharged five or six shot among the reeds; we landed where there lay a many of baskets, and much blood, but saw not a savage. A smoke appearing on the other side the river, we rowed thither, where we found two or three little houses, in each a fire; there we left some pieces of copper, beads, bells, and looking-glasses, and then went into the bay, but when it was dark, we came back again. Early in the morning, four savages came to us in their canoe, whom we used with such courtesy, not knowing what we were, nor had done, having been in the bay a fishing, bade us stay, and ere long they would return, which they did, and some twenty more with them; with whom, after a little conference, two or three thousand men, women, and children came clustering about us, every one presenting us with something, which a little bead would so well requite, that we became such friends, they would contend who should fetch us water, stay with us for hostage, conduct our men any whither, and give us the best content. Here doth inhabit the people of Sarapinagh, Nause, Arseek, and Nantaquak, the best merchants of all other savages. They much extolled a great nation called Massawomekes, in search of whom we returned by Limbo; this river but only at the entrance is very narrow, and the people of small stature as them of Wightcocomoco; the land but low, yet it may prove very commodious, because it is but a ridge of land betwixt the bay and the main ocean. Finding this eastern shore shallow broken isles, and for most part without fresh water, we passed by the straits of Limbo for the western shore; so broad is the bay here, we could scarce perceive the great high cliffs on the other side; by them we anchored that night, and called them Rickard's Cliffs; thirty leagues we sailed more northwards, not finding any inhabitants, leaving all the eastern shore low islands, but overgrown with wood, as all the coast beyond them so far as we could see; the western shore, by which we sailed, we found all along well watered, but very mountainous and barren; the vallies very fertile, but extremely thick of small wood, as well as trees, and much frequented with wolves, bears, deer, and other wild beasts. We passed many shallow creeks, but the first we found navigable for a ship we called Bolus, for that the clay in many places under the cliffs, by the high-water mark, did grow up in red and white knots, as gum out of trees, and in some places so participated together as though they were all of one nature, excepting the colour; the rest of the earth on both sides being hard sandy gravel, which made us think it Bole-Armoniack and Terra-sigillata. When we first set sail, some of our gallants doubted nothing but that our captain would make too much haste home; but having lain in this small barge not above twelve or fourteen days, often tired at the oars, our bread spoiled with wet, so much that it was rotten, (yet so good were their stomachs, that they could digest it,) they did with continual complaints so importune him now to return, as caused him bespeak them in this manner:

"Gentlemen, if you would remember the memorable history of Sir Ralph Layne, how his company importuned him to proceed in the discovery of Moratico, alledging they had yet a dog, that being boiled with saffraas leaves, would richly feed them in their return; then what a shame would it be for you (that have been so suspicious of my tendernefs) to force my return, with so much provision as we have, and scarce able to say where we have been, nor yet heard of that we were sent to seek? You cannot say but I have shared with you in the worst which is past; and for what is to come, of lodging, diet, or whatsoever, I am contented you allot the worst part to myself. As
for

for your fears that I will lose myself in these unknown waters, or be swallowed up in some stormy gulf; abandon these childish fears, for worse than is past is not likely to happen; and there is as much danger to return as to proceed. Regain therefore your old spirits, for return I will not (if God please) till I have seen the Massawomeks, found Patowomek, or the head of this water, you conceit to be endless." Two or three days we expected wind and weather, whose adverse extremities added such discouragement, that three or four fell sick, whose pitiful complaints caused us to return, leaving the bay some nine miles broad, at nine and ten fathom water.

The 16th of June we fell with the river Patowomek: fear being gone, and our men recovered, we were all content to take some pains, to know the name of that seven mile broad river: for thirty miles sail we could see no inhabitants: then we were conducted by two savages up a little bayed creek, towards Onawmanient, where all the woods were laid with ambuscados to the number of three or four thousand savages, so strangely painted, grimmed and disguised, shouting, yelling and crying as so many spirits from hell could not have shewed more terrible. Many bravadoes they made, but to appease their fury, our captain prepared with as seeming willingness as they to encounter them. But the grazing of our bullets upon the water (many being shot on purpose they might see them) with the echo of the woods so amazed them, as down went their bows and arrows; and exchanging hostage James Watkins was sent six miles up the woods to their King's habitation. We were kindly used of those savages, of whom we understood, they were commanded to betray us, by the direction of Powhatan, and he so directed from the discontents at James Town, because our captain did cause them stay in their country against their wills.

The like encounters we found at Patowomek Cecocawonee and divers others places; but at Moyaones, Nacotchtant and Toags the people did their best to content us. Having gone so high as we could with the boat, we met divers savages in canoes, well loaden with the flesh of bears, deer and other beasts, whereof we had part: here we found mighty rocks, growing in some places above the ground as high as shrubby trees, and divers other solid quarries of divers tinctures: and divers places where the waters had fallen from the high mountains they had left a tinctured spagled skurf, that made many bare places seem as gilded. Digging the ground above in the highest cliffs of rocks, we saw it was a clay sand so mingled with yellow spangles as if it had been half pin-dust. In our return, inquiring still for this Matchqueon, the king of Patawomeke gave us guides to conduct us up a little river called Quiyough, up which we rowed as high as we could. Leaving the boat, with six shot, and divers savages, he marched seven or eight miles before they came to the mine: leading his hostages in a small chain they were to have for their pains, being proud so richly to be adorned. The mine is a great rocky mountain like Antimony; wherein they digged a great hole with shells and hatchets: and hard by it, runneth a fair brook of christal-like water, where they wash away the dross and keep the remainder, which they put in little bags and sell it all over the country to paint their bodies, faces, or idols; which makes them look like black-moors dusted over with silver. With so much as we could carry we returned to our boat, kindly requiting this kind King and all his kind people. The cause of this discovery was to search this mine, of which Newport did assure us that those small bags (we had given him) in England he had tried to hold half silver; but all we got proved of no value: also to search what furs, the best whereof is at Cuscarawaoke, where is made so much rawranoke or white beads that occasion as much dissention among the savages, as gold and silver amongst Christians; and what other minerals, rivers, rocks, nations, woods, fishings, fruits, victuals, and what other commodities the land afforded:

and whether the bay was endless or how far it extended : of mines we were all ignorant, but a few beavers, otters, bears, martins and minks we found, and in divers places that abundance of fish, lying so thick with their heads above the water, as for want of nets (our barge driving amongst them) we attempted to catch them with a frying-pan : but we found it a bad instrument to catch fish with : neither better fish, more plenty, nor more variety for small fish, had any of us ever seen in any place so swimming in the water, but they are not to be caught with frying-pans : some small cod also we did see swim close by the shore by Smith's Isles, and some as high as Riccards Clifts. And some we have found dead upon the shore.

To express all our quarrels, treacheries and encounters amongst those savages I should be too tedious : but in brief, at all times we so encountred them, and curbed their insolencies, that they concluded with presents to purchase peace, yet we lost not a man : at our first meeting, our captain ever observed this order to demand their bows and arrows, swords, mantles and furs, with some child or two for hostage, whereby we could quickly perceive, when they intended any villainy. Having finished this discovery (though our victuals was near spent) he intended to see his imprisoned acquaintances upon the river of Rapahanok, by many called Toppahanock, but our boat by reason of the ebb, chancing to ground upon many shoals lying in the entrances, we spied many fishes lurking in the reeds : our captain sporting himself by nailing them to the ground with his sword, set us all a fishing in that manner : thus we took more in one hour than we could eat in a day. But it chanced our captain taking a fish from his sword (not knowing her condition) being much of the fashion of a thornback, but a long tail like a riding rod, whereon the middest is a most poisoned sting, of two or three inches long, bearded like a saw on each side, which she struck into the wrist of his arm near an inch and a half ; no blood nor wound was seen, but a little blue spot, but the torment was instantly so extreme, that in four hours had so swollen his hand, arm and shoulder, we all with much sorrow concluded his funeral, and prepared his grave in an island by, as himself directed : yet it pleased God, by a precious oil Doctor Ruffel at the first applied to it when he sounded it with probe, ere night, his tormenting pains was so well assuaged that he eat of the fish to his supper, which gave no less joy and content to us than ease himself, for which we called the island Stingray Isle, after the name of the fish.

Having neither surgeon, nor surgery, but that preservative oil, we presently set sail for James Town, passing the mouths of the rivers of Payankatank, and Pamaunkee : the next day we safely arrived at Kecoughtan. The simple savages seeing our captain hurt, and an other bloody by breaking his shin, our numbers of bows, arrows, swords, mantles, and furs, would needs imagine we had been at war; the truth of these accidents would not satisfy them, but impatiently importuned us to know with whom. Finding their aptness to believe we failed not (as a great secret) to tell them any thing that might affright them, what spoil we had got and made of the Massawomeks. This rumour went faster up the river than our barge, that arrived at Waraskoyack the 20th of July ; where trimming her with painted streamers, and such devices as we could, we made them at James Town jealous of a Spanish frigate, where we all, God be thanked, safely arrived the 21st of July. There we found the last supply were all sick, the rest some lame, some bruised ; all unable to do any thing but complain of the pride and unreasonable needless cruelty of the silly president, that had riotously consumed the store : and to fulfil his follies about building him an unnecessary building for his pleasure in the woods, had brought them all to that misery ; that had we not arrived, they had as strangely tormented him with revenge : but the good news of our discovery,

covery, and the good hope we had by the savage's relation, that our bay had stretched into the South Sea, or somewhat near it, appeased their fury; but conditionally that Ratliffe should be deposed, and that Captain Smith would take upon him the government, as by course it did belong. Their request being effected, he substituted Mr. Scrivener, his dear friend, in the presidency, equally distributing those private provisions the other had ingrossed, appointing more honest officers to assist Mr. Scrivener (who then lay exceeding sick of a callenture); and in regard of the weakness of the company, and heat of the year, they being unable to work, he left them to live at ease, to recover their health, but embarked himself to finish his discovery.

Written by Walter Russell, Anas Todkill, and Thomas Momford.

CHAP. VI. — *The Government surrendered to Mr. Scrivener. — What happened the Second Voyage in discovering the Bay.*

THE 24th of July, Captain Smith set forward to finish the discovery with twelve men: their names were

Nathaniel Powell	} Gentlemen.	James Profit	} Soldiers.
Thomas Momford		Anas Todkill	
Richard Fetherston		Edward Pising	
Michael Sicklemore		Richard Keale	
James Bourne		James Watkins	
Anthony Bagnall, chirurg.		William Ward	

The wind being contrary, caused our stay two or three days at Kecoughtan: the King feasted us with much mirth; his people were persuaded we went purposely to be revenged of the Massawomeks. In the evening we fired a few rockets, which flying in the air so terrified the poor savages, they supposed nothing impossible we attempted, and desired to assist us. The first night we anchored at Stingray Isle. The next day crossed Patawomeks River, and hastened to the river Bolus. We went not much further before we might see the bay to divide in two heads, and arriving there we found it divided in four, all which we searched so far as we could sail them. Two of them we found inhabited, but in crossing the bay we encountered seven or eight canoes full of Massawomeks; we seeing them prepare to assault us, left our oars and made way with our sail to encounter them, yet were we but five with our captain that could stand; for within two days after we left Kecoughtan, the rest (being all of the last supply) were sick almost to death, until they were seasoned to the country. Having shut them under our tarpauling, we put their hats upon sticks by the barge side, and betwixt two hats a man with two pieces, to make us seem many; and so we think the Indians supposed those hats to be men, for they fled with all possible speed to the shore, and there stayed, staring at the sailing of our barge till we anchored right against them. Long it was ere we could draw them to come unto us: at last they sent two of their company unarmed in a canoe, the rest all followed to second them if need required. These two being but each presented with a bell, brought aboard all their fellows, presenting our captain with venison, bears' flesh, fish, bows, arrows, clubs, targets, and bears' skins. We understood them nothing at all but by signs, whereby they signified unto us they had been at wars with the Tockwoghes, the which they confirmed by shewing us their green wounds; but the night parting us, we imagined they appointed the next morning to meet, but after that we never saw them.

Entering the river of Tockwogh, the savages all armed in a fleet of boats, after their barbarous manner, round invironed us, so it chanced one of them could speak the language of Powhatan, who persuaded the rest to a friendly parley. But when they saw us furnished with the Massawomeks weapons, and we faining the invention of Kecoughtan, to have taken them perforce; they conducted us to their pallisadoed town, mantled with the barks of trees, with scaffolds like mounts, breasted about with breasts very formally. Their men, women, and children with dances, songs, fruits, furs, and what they had kindly welcomed us, spreading mats for us to sit on, stretching their best abilities to express their loves.

Many hatchets, knives, pieces of iron and brass, we saw amongst them, which they reported to have from the Sasquesahanocks; a mighty people and mortal enemies with the Massawomeks. The Sasquesahanocks inhabit upon the chief spring of these four branches of the bay's head, two days journey higher than our barge could pass for rocks, yet we prevailed with the interpreter to take with him another interpreter, to persuade the Sasquesahanocks to come visit us, for their language are different. Three or four days we expected their return, then sixty of those giant-like people came down, with presents of venison, tobacco-pipes three foot in length, baskets, targets, bows and arrows. Five of their chief Werowances came boldly aboard us to cross the bay for Tockwhogh, leaving their men and canoes, the wind being so high they durst not pass.

Our order was daily to have prayer, with a psalm, at which solemnity the poor savages much wondered; our prayers being done, awhile they were busied with a consultation till they had contrived their business, then they began in a most passionate manner to hold up their hands to the sun with a most fearful song, then embracing our captains they begun to adore him in like manner; though we rebuked them, yet they proceeded till their song was finished, which done, with a most strange furious action, and a hellish voice, began an oration of their loves; that ended, with a great painted bear's skin they covered him, then one ready with a great chain of white beads, weighing at least six or seven pounds, hung it about his neck, the others had eighteen mantles, made of divers sorts of skins sewed together, all these with many other toys they laid at his feet, stroking their ceremonious hands about his neck for his creation to be their governor and protector, promising their aids, victuals, or what they had to be his if he would stay with them to defend and revenge them of the Massawomeks. But we left them at Tockwhogh, sorrowing for our departure, yet we promised the next year again to visit them. Many descriptions and discourses they made us of Atquanachuck, Massawomek, and other people, signifying they inhabit upon a great water beyond the mountains, which we understood to be some great lake, or the river of Canada, and from the French to have their hatchets and commodities by trade. These know no more of the territories of Powhatan then his name, and he as little of them, but the Atquanachuks are on the ocean sea.

The highest mountain we saw northward we called Peregrine's Mount, and a rocky river, where the Massawomeks went up. Willowbyes River, in honour of the town our captain was born in, and that honourable house the Lord Willoughby, his most honoured good friend. The Sasquesahanocks River we called Smith's Falls; the next point to Tockwhogh, Pising's Point; the next it Point Bourne. Powell's Isles and Smal's Point is by the river Bolus, and the little bay at the head Profit's Poole; Watkin's, Read's, and Momford's Points are on each side Limbo; Ward, Cantrell, and Sicklemore, betwixt Patawomek and Pamaunkee, after the names of the discoverers. In all those places and the furthest we came up the rivers, we cut in trees

so many crosses as we would, and in many places made holes in trees, wherein we writ notes, and in some places crosses of brass, to signify to any, Englishmen had been there.

Thus having sought all the inlets and rivers worth noting, we returned to discover the river of Pawtuxunt; these people we found very tractable, and more civil than any: we promised them, as also the Patawomeks, to revenge them of the Massawomeks, but our purposes were crossed.

In the discovery of this river some call Rapahanock, we were kindly entertained by the people of Moraughtacund; here we encountered our old friend Mosco, a lusty savage of Wighcocomoco, upon the river Patawomek: we supposed him some Frenchman's son, because he had a thick black bush beard, and the savages seldom have any at all, of which he was not a little proud to see so many of his countrymen. Wood and water he would fetch us, guide us any whither, nay, cause divers of his countrymen help us tow against wind or tide from place to place till we came to Patawomek; there he rested till we returned from the head of the river, and occasioned our conduct to the mine we supposed antimony; and in the place he failed not to do us all the good he could, persuading us in any case not to go to the Rapahanocks, for they would kill us for being friends with the Moraughtacunds, that but lately had stolen three of the King's women. This we did think was but that his friends might only have our trade, so we crossed the river to the Rapahanocks. There some twelve or sixteen standing on the shore, directed us a little creek, where was good landing, and commodities for us in three or four canoes we saw lie there; but according to our custom, we demanded to exchange a man in sign of love, which after they had a little consulted, four or five came up to the middle to fetch our man, and leave us one of them, shewing we need not fear them, for they had neither clubs, bows, nor arrows. Notwithstanding, Anas Todkill, being sent on shore to see if he could discover any ambuscadoes, or what they had desired to go over the plain to fetch some wood, but they were unwilling, except we would come into the creek, where the boat might come close ashore. Todkill by degrees having got some two stones-throws up the plain, perceived two or three hundred men (as he thought) behind the trees, so that offering to return to the boat, the savages essayed to carry him away per force, that he called to us we were betrayed, and by that he had spoke the word, our hostage was overboard, but Watkins his keeper, slew him in the water. Immediately we let fly amongst them, so that they fled, and Todkill escaped, yet they shot so fast that he fell flat on the ground ere he could recover the boat. Here the Massawomek targets stood us in good stead, for upon Mosco's words, we had set them about the forepart of our boat like a forecastle, from whence we securely beat the savages from off the plain without any hurt, yet they shot more than a thousand arrows, and then fled into the woods. Arming ourselves with these light targets (which are made of little small sticks woven betwixt strings of their hemp and silk grass, as is our cloth, but so firmly that no arrow can possibly pierce them): we rescued Todkill, who was all bloody by some of them who were shot by us that held him, but as God pleased, he had no hurt; and following them up to the woods we found some slain, and in divers places much blood. It seems all their arrows were spent, for we heard no more of them; their canoes we took, the arrows we found we broke, save them we kept for Mosco, to whom we gave the canoes for his kindness, that entertained us in the best triumphing manner, and warlike order in arms of conquest he could procure of the Moraughtacunds.

The rest of the day we spent in accommodating our boat, instead of thoules we made sticks like bed-staves, to which we fastened so many of our Massawomek targets, that

that environed her as waste cloaths. The next morning we went up the river, and our friend Mosco followed us along the shore, and at last desired to go with us in our boat. But as we passed by Pisacack, Matchopeak, and Mecuppom, three towns situated upon high white clay cliffs, the other side all a low plain marsh, and the river there but narrow, thirty or forty of the Rapahanocks had so accommodated themselves with branches, as we took them for little bushes growing among the sedge, still seeing their arrows strike the targets, and dropped in the river, whereat Mosco fell flat in the boat on his face, crying the Rapahanocks, which presently we espied to be the bushes, which at our first volley fell down in the sedge, when we were near half a mile from them, they shewed themselves dancing and singing very merrily.

The Kings of Pissassack, Nandtaughtacund, and Cuttatawomen, used us kindly, and all their people neglected not any thing to Mosco to bring us to them. Betwixt Secobeck and Massawteck is a small isle or two, which causeth the river to be broader than ordinary; there it pleased God to take one of our company, called Mr. Fetherstone, that all the time he had been in this country had behaved himself honestly, valiantly, and industriously, where, in a little bay we called Fetherstone's Bay, we buried him with a volley of shot: the rest, notwithstanding their ill diet and bad lodging, crowded in so small a barge, in so many dangers never resting, but always tossed to and again, had all well recovered their healths. The next day we sailed so high as our boat would float, there setting up crosses, and engraving our names in the trees. Our sentinel saw an arrow fall by him, though we had ranged up and down more than an hour in digging in the earth, looking of stones, herbs, and springs, not seeing where a savage could well hide himself.

Upon the alarm by that we had recovered our arms, there was about an hundred nimble Indians skipping from tree to tree, letting fly their arrows so fast as they could: the trees here served us for barricadoes as well as they. But Mosco did us more service than we expected, for having shot away his quiver of arrows, he ran to the boat for more. The arrows of Mosco at the first made them pause upon the matter, thinking by his bruit and skipping there were many savages. About half an hour this continued, then they all vanished as suddenly as they approached. Mosco followed them so far as he could see us till they were out of sight. As we returned there lay a savage as dead, shot in the knee, but taking him up we found he had life, which Mosco seeing, never was dog more furious against a bear than Mosco was to have beat out his brains, so we had him to our boat, where our chirurgeon who went with us to cure our captain's hurt of the stingray, so dressed this savage that within an hour after he looked somewhat cheerfully, and did eat and speak. In the meantime we contented Mosco in helping him to gather up their arrows, which were an arm full, whereof he gloried not a little. Then we desired Mosco to know what he was and what countries were beyond the mountains: the poor savage mildly answered, he and all with him were of Hasinninga, where there are three kings more like unto them, namely, the King of Stegora, the King of Tauxuntania, and the King of Shakahonea, that were come to Mohaskahod, which is only a hunting town, and the bounds betwixt the kingdom of the Mannahocks and the Nandtaughtacunds, but hard by where we were. We demanded why they came in that manner to betray us that came to them in peace and to seek their loves; he answered, they heard we were a people come from under the world to take their world from them. We asked him how many worlds he did know; he replied, he knew no more but that which was under the sky that covered him, which were the Powhatans, with the Monacnas, and the Massawomeks, that were higher up in the mountains. Then we asked him what was beyond the mountains, he answered,

answered, the sun : but of any thing else he knew nothing, because the woods were not burnt. These and many such questions we demanded concerning the Maffawomeks, the Monacans, their own country, and where were the Kings of Stegora, Tauxfintania, and the rest. The Monacans, he said, were their neighbours and friends, and did dwell as they in the hilly countries by small rivers, living upon roots and fruits, but chiefly by hunting. The Maffawomeks did dwell upon a great water and had many boats, and so many men that they made war with all the world, for their kings ; they were gone every one a several way with their men on hunting, but those with him came thither a fishing till they saw us, notwithstanding they would be altogether at night at Mahaskahod. For his relation we gave him many toys, with persuasions to go with us, and he as earnestly desired us to stay the coming of those kings, that for his good usage should be friends with us, for he was brother to Hafinninga. But Mosco advised us presently to be gone, for they were all naught, yet we told him we would not till it was night. All things we made ready to entertain what came, and Mosco was as diligent in trimming his arrows. The night being come we all embarked, for the river was so narrow, had it been light, the land on the one side was so high, they might have done us exceeding much mischief. All this while the King of Hafinninga was seeking the rest, and had consultation a good time what to do, but by their spies, seeing we were gone, it was not long before we heard their arrows dropping on every side the boat ; we caused our savages to call unto them, but such a yelling and hallooing they made that they heard nothing, but now and then a piece, aiming so near as we could where we heard the most voices. More than twelve miles they followed us in this manner ; then the day appearing, we found ourselves in a broad bay, out of danger of their shot, where we came to an anchor, and fell to breakfast. Not so much as speaking to them till the sun was risen ; being well refreshed, we untied our targets that covered us as a deck, and all shewed ourselves with those shields on our arms, and swords in our hands, and also our prisoner, Amoroleck ; a long discourse there was betwixt his countrymen and him, how good we were, how well we used him, how we had a Patawomek with us, loved us as his life, that would have slain him had we not preserved him, and that he should have his liberty, would they be but friends, and to do us any hurt it was impossible. Upon this they all hung their bows and quivers upon the trees, and one came swimming aboard us with a bow tied on his head, and another with a quiver of arrows, which they delivered our captain as a present. The captain having used them so kindly as he could, told them the other three kings should do the like, and then the great King of our world should be their friend, whose men we were. It was no sooner demanded but performed ; so upon a low moorish point of land we went to the shore, where those four kings came and received Amoroleck. Nothing they had but bows, arrows, tobacco-bags, and pipes : what we desired none refused to give us, wondering at every thing we had, and heard we had done ; our pistols they took for pipes, which they much desired, but we did content them with other commodities ; and so we left four or five hundred of our merry Mannahocks, singing, dancing, and making merry, and set sail for Moraughtacund.

In our return we visited all our friends, that rejoiced much at our victory against the Mannahocks, who many times had wars also with them, but now they were friends, and desired we would be friends with the Rapahanocks, as we were with the Mannahocks. Our captain told them, they had twice assaulted him that came only in love to do them good, and therefore he would now burn all their houses, destroy their corn, and for ever hold them his enemies, till they made him satisfaction ; they desired to know what that should be ; he told them they should present him the king's bow and
arrows,

arrows, and not offer to come armed where he was ; that they should be friends with the Moraughtacunds his friends, and give him their King's son in pledge to perform it, and then all King James's men should be their friends. Upon this they presently sent to the Rapahanocks to meet him at the place where they first fought, where would be the Kings of Nantautacund and Pissaffac : which according to their promise were there so soon as we, where Rapahanock presented his bow and arrows, and confirmed all we desired, except his son, having no more but him he could not live without him, but instead of his son he would give him the three women Moraughtacund had stolen. This was accepted ; and so in three or four canoes, so many as could, went with us to Moraughtacund, where Mosco made them such relations, and gave to his friends so many bows and arrows, that they no less loved him than admired us. The three women were brought our captain, to each he gave a chain of beads ; and then causing Moraughtacund, Mosco, and Rapahanock to stand before him, bid Rapahanock take her loved best, and Moraughtacund chose next, and to Mosco he gave the third. Upon this away went their canoes over the water, to fetch their venison, and all the provision they could, and they that wanted boats swam over the river : the dark commanded us then to rest. The next day there was of men, women, and children, as we conjectured, six or seven hundred, dancing and singing, and not a bow nor arrow seen amongst them. Mosco changed his name Uttasantaough, which we interpret, stranger, for so they call us : all promising ever to be our friends, and to plant corn purposely for us ; and we to provide hatchets, beads, and copper for them ; we departed, giving them a volley of shot, and they us as loud shouts and cries as their strength could utter. That night we anchored in the river of Payankatank, and discovered it so high as it was navigable ; but the people were most a hunting, save a few old men, women, and children, that were tending their corn, of which they promised us part when we would fetch it, as had done all the nations wherever we had yet been.

In a fair calm, rowing towards point Comfort, we anchored in Gosnoll's Bay, but such a sudden gust surprised us in the night with thunder and rain, that we never thought more to have seen James Town. Yet running before the wind, we sometimes saw the land by the flashes of fire from heaven, by which light only we kept from the splitting shore, until it pleased God in that black darkness to preserve us by that light to find Point Comfort : there refreshing ourselves, because we had only but heard of the Chesapeake and Nansamunds, we thought it as fit to know all our neighbours near home, as so many nations abroad.

So setting sail for the southern shore, we sailed up a narrow river up the country of Chesapeake ; it hath a good channel, but many shoals about the entrance. By that we had sailed six or seven miles, we saw two or three little garden-plots with their houses, the shores overgrown with the greatest pine and fir trees we ever saw in the country. But not seeing nor hearing any people, and the river very narrow, we returned to the great river to see if we could find any of them. Coasting the shore towards Nansamund, which is most oyster banks ; at the mouth of that river we espied six or seven savages making their fires, who presently fled : ashore we went, and where they wrought we threw divers toys, and so departed. Far we were not gone ere they came again, and began to sing and dance and recall us ; and thus we began our first acquaintance. At last one of them desired us to go to his house up that river ; into our boat voluntarily he came, the rest ran after us by the shore with all shew of love that could be. Seven or eight miles we sailed up this narrow river : at last on the western shore we saw large corn-fields, in the midst a little isle, and in it was abundance of corn ; the people, he told us, were all a hunting ; but in the
isle

isle was his house, to which he invited us with much kindness; to him, his wife, and children we gave such things as they seemed much contented them. The others being come, desired us also to go but a little higher to see their houses: here our host left us, the rest rowed by us in a canoe, till we were so far past the isle the river became very narrow. Here we desired some of them to come aboard us, whereat pausing a little, they told us they would but fetch their bows and arrows, and go all with us; but being ashore and thus armed, they persuaded us to go forward, but we could neither persuade them into their canoe, nor into our boat. This gave us cause to provide for the worst. Far we went not ere seven or eight canoes full of men armed appeared following us, staying to see the conclusion. Presently from each side of the river came arrows so fast as two or three hundred could shoot them, whereat we returned to get the open. They in the canoes let fly also as fast, but amongst them we bestowed so many shot, the most of them leaped overboard and swam ashore, but two or three escaped by rowing, being against their plains: our muskets they found shot further than their bows, for we made not twenty shot ere they all retired behind the next trees. Being thus got out of their trap, we seized on all their canoes, and moored them in the midst of the open. More than an hundred arrows stuck in our targets, and about the boat, yet none hurt, only Anthony Bagnall was shot in his hat, and another in his sleeve. But seeing their multitudes, and suspecting, as it was, that both the Nanfamunds, and the Chesapeaks were together, we thought it best to ride by their canoes a while, to bethink if it were better to burn all in the isle, or draw them to composition, till we were provided to take all they had, which was sufficient to feed all our colony; but to burn the isle at night it was concluded. In the interim we began to cut in pieces their canoes, and they presently to lay down their bows, making signs of peace: peace, we told them, we would accept, would they bring us their King's bows and arrows, with a chain of pearl; and when we came again, give us four hundred baskets full of corn, otherwise we would break all their boats, and burn their houses and corn, and all they had. To perform all this they alleged only the want of a canoe, so we put one adrift, and bid them swim to fetch her; and till they performed their promise, we would but only break their canoes. They cried to us to do no more; all should be as we would: which presently they performed, away went their bows and arrows, and tag and rag came with their baskets: so much as we could carry we took, and so departing good friends, we returned to James Town, where we safely arrived the 7th of September, 1608. There we found Mr. Scrivener, and divers others, well recovered; many dead; some sick; the late president prisoner for mutiny; by the honest diligence of Mr. Scrivener, the harvest gathered, but the provision in the store much spoiled with rain. Thus was that summer (when little wanted) consumed and spent, and nothing done (such was the government of Captain Ratliff) but only this discovery; wherein to express all the dangers, accidents, and encounters this small number passed in that small barge, by the scale of proportion, about three thousand miles, with such watery diet in those great waters and barbarous countries (till then to any Christian utterly unknown) I rather refer their merit to the censure of the courteous and experienced reader, than I would be tedious or partial, being a party.

But to this place to come who will adventure,
 With judgment's guide and reason how to enter;
 Finds in this world's broad sea, with wind and tide,
 There's safer sail than any where beside.
 But cause to wanton novices it is
 A province full of fearfulness I wifs;

Into

Into the great vast deep to venture out,
 Those shallow rivers let them coast about,
 And by a small boat learn there first, and mark
 How they may come to make a greater bark.

Written by ANTHONY BAGNALL, NATHANIEL POWELL, and ANAS TODKILL.

CHAP. VII.—*The Presidency surrendered to Captain Smith: the Arrival and Return of the second Supply, and what happened.*

THE 10th of September, by the election of the council and request of the company, Captain Smith received the letters patent, which till then by no means he would accept, though he was often importuned thereunto. Now the building of Ratcliffe's palace staid as a thing needless; the church was repaired; the storehouse recovered; buildings prepared for the supplies we expected; the fort reduced to a fine square form; the order of the watch renewed; the squadrons (each setting of the watch) trained; the whole company every Saturday exercised in the plain by the west bulwark, prepared for that purpose, we called Smithfield, where sometimes more than a hundred savages would stand in an amazement to behold how a file would batter a tree, where he would make them a mark to shoot at; the boats trimmed for trade, which being sent out with Lieutenant Percy, in their journey encountered the second supply, that brought them back to discover the country of Monacan. How or why Captain Newport obtained such a private commission, as not to return without a lump of gold, a certainty of the South Sea, or one of the lost company sent out by Sir Walter Raleigh, I know not; nor why he brought such a fine pieced barge, nor to bear us to that South Sea, till we had borne her over the mountains, which how far they extend is yet unknown. As for the coronation of Powhatan, and his presents of bason and ewer, bed, bedstead, clothes, and such costly novelties, they had been much better well spared than so ill spent, for we had his favour much better only for a plain piece of copper, till this stately kind of soliciting made him so much over-value himself, that he respected us as much as nothing at all. As for the hiring of the Poles and Dutchmen to make pitch, tar, glass, mills, and soap-ashes when the country is replenished with people, and necessaries, would have done well; but to send them and seventy more without victuals to work, was not so well advised nor considered of, as it should have been. Yet this could not have hurt us had they been two hundred, though then we were one hundred and thirty that wanted for ourselves; for we had the savages in that decorum (their harvest being newly gathered) that we feared not to get victuals for five hundred. Now was there no way to make us miserable but to neglect that time to make provision whilst it was to be had, the which was done by the direction from England to perform this strange discovery; but a more strange coronation to lose that time, spend that victuals we had, tire and starve our men, having no means to carry victuals, munition, the hurt or sick, but on their own backs. How or by whom they were invented I know not; but Captain Newport we only accounted the author, who, to effect these projects, had so gilded men's hopes with great promises, that both company and council concluded his resolution for the most part. God doth know they little knew what they did, nor understood their own estates, to conclude his conclusions, against all the inconveniencies the foregoing president alledged. Of this supply there was added to the council one Captain Richard Waldo and Captain Richard Wynne, two ancient soldiers and valiant gentlemen, but yet ignorant of the business (being but newly arrived). Ratcliffe was also permitted

to have his voice, and Mr. Scrivener, desirous to see strange countries; so that although Smith was president, yet the major part of the council had the authority, and ruled it as they listed. As for clearing Smith's objections, how pitch and tar, wainscot, clapboard, glass, and soap-ashes, could be provided to relade the ship, or provision got to live withal, when none was in the country, and that we had, spent, before the ship departed to effect these projects. The answer was, Captain Newport undertook to freight the pinnace of twenty tons with corn in going and returning in his discovery, and to refreight her again from Werowocomoco of Powhatan; also promising a great proportion of victuals from the ship; inferring that Smith's propositions were only devices to hinder his journey, to effect it himself, and that the cruelty he had used to the savages might well be the occasion to hinder these designs, and seek revenge on him; for which taxation all works were left, and one hundred and twenty chosen men were appointed for Newport's guard in this discovery. But Captain Smith, to make clear all those seeming suspicions that the savages were not so desperate as was pretended by Captain Newport, and how willing (since by their authority they would have it so) he was to assist them what he could, because the coronation would consume much time, he undertook himself their message to Powhatan, to entreat him to come to James Town to receive his presents; and where Newport durst not go with less than one hundred and twenty, he only took with him Captain Waldo, Mr. Andrew Buckler, Edward Brinton, and Samuel Collier. With these four he went over-land to Werowocomoco, some twelve miles; there he passed the river of Pamaunkee in a savage canoe. Powhatan being thirty miles off, was presently sent for: in the mean time, Pocahontas and her women entertained Captain Smith in this manner:

In a fair plain field they made a fire, before which he sitting upon a mat, suddenly amongst the woods was heard such a hideous noise and shrieking, that the English betook themselves to their arms, and seized on two or three old men by them, supposing Powhatan with all his power was come to surprize them. But presently Pocahontas came, willing him to kill her if any hurt were intended; and the beholders, which were men, women, and children, satisfied the Captain there was no such matter. Then presently they were presented with this antic: thirty young women came naked out of the woods, only covered behind and before with a few green leaves, their bodies all painted, some of one colour some of another, but all differing: their leader had a fair pair of buck's horns on her head, and an otter's skin at her girdle, and another at her arm, a quiver of arrows at her back, a bow and arrows in her hand; the next had in her hand a sword, another a club, another a pot-stick, all horned alike; the rest every one with their several devices. These fiends, with most hellish shouts and cries, rushing from among the trees, cast themselves in a ring about the fire, singing and dancing with most excellent ill variety, oft falling into their infernal passions, and solemnly again to sing and dance. Having spent near an hour in this masquerade, as they entered in like manner they departed.

Having re-accommodated themselves, they solemnly invited him to their lodgings, where he was no sooner within the house, but all these nymphs more tormented him than ever with crowding, pressing, and hanging about him, most tediously crying, "Love you not me? Love you not me?" This salutation ended, the feast was set, consisting of all the savage dainties they could devise; some attending, others singing and dancing about them; which mirth being ended, with firebrands instead of torches they conducted him to his lodging.

Thus did they shew their feats of arms, and others art in dancing,
Some other used their oaten pipe, and others voices chaunting.

The

The next day came Powhatan. Smith delivered his message of the presents sent him, and redelivered him Namontack he had sent for England, desiring him to come to his father Newport, to accept those presents, and conclude their revenge against the Monacans. Whereunto this subtle savage thus replied :

" If your King have sent me presents, I also am a king, and this is my land : eight days I will stay to receive them. Your father is to come to me, not I to him, nor yet to your fort, neither will I bite at such a bait. As for the Monacans I can revenge my own injuries ; and as for Atquanachuk, where you say your brother was slain, it is a contrary way from those parts you suppose it : but for any salt-water beyond the mountains, the relations you have had from my people are false." Whereupon he began to draw plots upon the ground (according to his discourse) of all those regions. Many other discourses they had (yet both content to give each other content in complimentary courtesies) ; and so Captain Smith returned with this answer.

Upon this the presents were sent by water, which is near a hundred miles, and the captain's went by land with fifty good shot. All being met at Werowocomoco, the next day was appointed for his coronation ; then the presents were brought him, his bason and ewer, bed and furniture set up, his scarlet cloak and apparel with much ado put on him, being persuaded by Namontack they would not hurt him ; but a foul trouble there was to make him kneel to receive his crown, he neither knowing the majesty nor meaning of a crown, nor bending of the knee, endured so many persuasions, examples, and instructions, as tired them all ; at last, by leaning hard on his shoulders, he a little stooped, and three having the crown in their hands put it on his head, when by the warning of a pistol the boats were prepared with such a volley of shot, that the King started up in a horrible fear, till he saw all was well. Then remembering himself, to congratulate their kindness, he gave his old shoes and his mantle to Captain Newport : but perceiving his purpose was to discover the Monacans, he laboured to divert his resolution, refusing to lend him either men or guides more than Namontack ; and so, after some small complimentary kindness on both sides, in requital of his presents, he presented Newport with a heap of wheat ears, that might contain some seven or eight bushels, and as much more we bought in the town, wherewith we returned to the fort.

The ship having disburdened herself of seventy persons, with the first gentlewoman and woman-servant that arrived in our colony, Captain Newport, with one hundred and twenty chosen men, led by Captain Waldo, Lieutenant Percy, Captain Winne, Mr. West, and Mr. Scrivener, set forward for the discovery of Monacan, leaving the president at the fort with about eighty or ninety (such as they were) to relade the ship. Arriving at the Falls, we marched by land some forty miles in two days and a half, and so returned down the same path we went. Two towns we discovered of the Monacans, called Massinacak and Mowhemenchouch ; the people neither used us well nor ill ; yet for our security we took one of their petty kings, and led him bound to conduct us the way ; and in our return, searched many places we supposed mines, about which we spent some time in refining, having one William Callicut, a refiner, fitted for that purpose. From that crust of earth we digged he persuaded us to believe he extracted some small quantity of silver ; and (not unlikely) better stuff might be had for the digging. With this poor trial, being contented to leave this fair, fertile, well-watered country ; and coming to the falls, the savages feigned there were divers ships come into the bay to kill them at James Town. Trade they would not, and find their corn we could not, for they had hid it in the woods ; and being thus deluded, we arrived

at James Town, half sick, all complaining, and tired with toil, famine, and discontent, to have only but discovered our gilded hopes, and such fruitless certainties as Captain Smith foretold us.

But those that hunger seek to flake,
Which thus abounding wealth would rake;
Not all the gems of Ister shore,
Nor all the gold of Lydia's store,
Can fill their greedy appetite,
It is a thing so infinite.

No sooner were we landed, but the president dispersed so many as were able, some for glass, others for tar, pitch, and soap-ashes, leaving them with the fort to the councils' oversight, but thirty of us he conducted down the river some five miles from James Town, to learn to make clapboard, cut down trees, and lie in woods. Amongst the rest he had chosen Gabriel Beadle, and John Russell, the only two gallants of this last supply, and both proper gentlemen. Strange were these pleasures to their conditions; yet lodging, eating, and drinking, working or playing, they but doing as the president did himself. All these things were carried so pleasantly as within a week they became masters: making it their delight to hear the trees thunder as they fell; but the axes so oft blistered their tender fingers, that many times every third blow had a loud oath to drown the echo; for remedy of which sin, the president devised how to have every man's oath numbered, and at night for every oath to have a can of water poured down his sleeve, with which every offender was so washed, (himself and all) that a man should scarce hear an oath in a week.

For he who scorns, and makes but jests of cursings, and his oath,
He doth contemn, not man but God, nor God, nor man, but both.

By this, let no man think that the president and these gentlemen spent their times as common wood-haggers at felling of trees, or such other like labours, or that they were pressed to as hirelings, or common slaves; for what they did, after they were but once a little inured, it seemed and some conceited it only as a pleasure and recreation, yet thirty or forty of such voluntary gentlemen would do more in a day than one hundred of the rest that must be pressed to it by compulsion, but twenty good workmen had been better than them all.

Mr. Scrivener, Captain Waldo, and Captain Winne at the fort, every one in like manner carefully regarded their charge. The president returning from amongst the woods, seeing the time consumed and no provision gotten, (and the ship lay idle at a great charge and did nothing,) presently embarked himself in the discovery barge, giving order to council to send Lieutenant Percie after him with the next barge that arrived at the fort; two barges he had himself and eighteen men, but arriving at Chickahamania, that dogged nation was too well acquainted with our wants, refusing to trade with as much scorn and insolency as they could express. The president perceiving it was Powhatan's policy to starve us, told them he came not so much for their corn, as to revenge his imprisonment, and the death of his men murdered by them, and so landing his men, and ready to charge them, they immediately fled: and presently after sent their ambassadors with corn, fish, fowl, and what they had to make their peace, (their corn being that year but bad) they complained extremely of their own wants, yet freighted our boats with an hundred bushels of corn, and in like manner Lieutenant Percie that not long after arrived, and having done the best they could to content us, we parted good friends, and returned to James Town.

Though

Though this much contented the company, (that feared nothing more than starving) yet some so envied his good success, that they rather desired to hazard a starving then his pains should prove so much more effectual than theirs. Some projects there were invented by Newport and Ratliffe, not only to have deposed him, but to have kept him out of the fort; for that being president, he would leave his place and the fort without their consent, but their horns were so much too short to effect it, as they themselves more narrowly escaped a greater mischief.

All this time our old tavern made as much of all them that had either money or ware as could be desired: by this time they were become so perfect on all sides (I mean the soldiers, sailors, and savages) as there was ten times more care to maintain their damnable and private trade than to provide for the colony things that were necessary. Neither was it a small policy in Newport and the mariners to report in England we had such plenty, and bring us so many men without victuals, when they had so many private factors in the fort, that within six or seven weeks, of two or three hundred axes, chissels, hoes, and pick-axes, scarce twenty could be found: and for pike-heads, shot, powder, or any thing they could steal from their fellows, was vendible; they knew as well (and as secretly) how to convey them to trade with the savages for fur, baskets, Muffanecks, young beast, or such like commodities, as exchange them with the sailors for butter, cheese, beef, pork, aqua vitæ, beer, biscuit, oatmeal, and oil: and then feign all was sent them from their friends. And though Virginia afforded no furs for the store, yet one master in one voyage hath got so many by this indirect means, as he confessed to have sold in England for 30l.

Those are the faint-seeming worthies of Virginia, that have notwithstanding all this meat, drink, and wages; but now they begin to grow weary, their trade being both perceived and prevented; none hath been in Virginia that hath observed any thing, which knows not this to be true, and yet the loss, the scorn, the misery, and shame, was the poor officers, gentlemen, and careless governors, who were all thus bought and sold; the adventurers cozened, and the action overthrown by their false excuses, informations, and directions. By this let all men judge, how this business could prosper, being thus abused by such pilfering occasions. And had not Captain Newport cried *peccavi*, the president would have discharged the ship, and caused him to have staid one year in Virginia, to learn to speak of his own experience.

Mr. Scrivener was sent with the barges and pinnace to Werowocomoco, where he found the savages more ready to fight than trade; but his vigilancy was such as prevented their projects, and by the means of Namontack got three or four hogheads of corn, and as much pocones, which is a red root, which then was esteemed an excellent dye.

Captain Newport being dispatched, with the trials of pitch, tar, glass, frankincense, soap-ashes, with that clapboard and wainscot that could be provided, met with Mr. Scrivener at Point Comfort, and so returned for England. We remaining were about two hundred.

The Copy of a Letter sent to the Treasurer and Council of Virginia from Captain Smith then President in Virginia.

“ Right Honorable, &c.

“ I received your letter, wherein you write, that our minds are so set upon faction and idle conceits in dividing the country without your consents, and that we feed you but with ifs and ands, hopes, and some few proofs; as if we would keep the mystery of the
business

business to ourselves: and that we must expressly follow your instructions sent by Captain Newport: the charge of whose voyage amounts to near two thousand pounds, the which, if we cannot defray by the ship's return, we are like to remain as banished men. To these particulars I humbly intreat your pardon, if I offend you with my rude answer.

"For our factions, unless you would have me run away and leave the country, I cannot prevent them: because I do make many stay that would else fly any weather. For the idle letter sent to my Lord of Salisbury, by the president and his confederates, for dividing the country, &c. what it was I know not, for you saw no hand of mine to it; nor ever dreamed I of any such matter. That we feed you with hopes, &c.; though I be no scholar, I am past a school-boy; and I desire but to know what either you, and these here do know, but that I have learned to tell you by the continual hazard of my life. I have not concealed from you any thing I know; but I fear some cause you to believe much more than is true.

"Expressly to follow your directions by Captain Newport, though they be performed, I was directly against it; but according to our commission, I was content to be overruled by the major part of the council, I fear to the hazard of us all, which now is generally confessed when it is too late. Only Captain Winne and Captain Waldo I have sworn of the council, and crowned Powhatan, according to your instructions.

"For the charge of this voyage of two or three thousand pounds, we have not received the value of an hundred pounds. And for the quartered boat to be borne by the soldiers over the falls, Newport had one hundred and twenty of the best men he could chuse. If he had burnt her to ashes, one might have carried her in a bag, but as she is, five hundred cannot, to a navigable place above the falls. And for him at that time to find in the South Sea, a mine of gold; or any of them sent by Sir Walter Raleigh: at our consultation I told them was as likely as the rest. But during this great discovery of thirty miles, (which might as well have been done by one man, and much more, for the value of a pound of copper at a seasonable time,) they had the pinnace and all the boats with them, but one that remained with me to serve the fort. In their absence I followed the new begun works of pitch and tar, glass, soap-ashes, and clap-board, whereof some small quantities we have sent you. But if you rightly consider what an infinite toil it is in Russia and Sweden, where the woods are proper for nothing else, and though there be the help both of man and beast in those ancient commonwealths, which many an hundred years have used it, yet thousands of those poor people can scarce get necessaries to live, but from hand to mouth. And though your factors there can buy as much in a week as will freight you a ship, or as much as you please, you must not expect from us any such matter, which are but a many of ignorant miserable souls, that are scarce able to get wherewith to live, and defend ourselves against the inconstant savages: finding but here and there a tree fit for the purpose, and want all things else that the Russians have. For the coronation of Powhatan, by whose advice you sent him such presents, I know not; but this give me leave to tell you, I fear they will be the confusion of us all ere we hear from you again. At your ship's arrival, the savages harvest was newly gathered, and we going to buy it, our own not being half sufficient for so great a number. As for the two ships loading of corn, Newport promised to provide us from Powhatan, he brought us but fourteen bushels; and from the Monacans nothing, but the most of the men sick and near famished. From your ship we had not provision in victuals worth twenty pounds, and we are more than two hundred to live upon this; the one half sick, the other little better. For the sailors (I confess) they daily make good cheer, but our diet is a little meal and water, and not sufficient

sufficient of that. Though there be fish in the sea, fowls in the air, and beasts in the woods, their bounds are so large, they so wild, and we so weak and ignorant, we cannot much trouble them. Captain Newport we much suspect to be the author of those inventions. Now that you should know I have made you as great a discovery as he, for less charge than he spendeth you every meal, I have sent you this map of the bay and rivers, with an annexed relation of the countries and nations that inhabit them, as you may see at large. Also two barrels of stones, and such as I take to be good iron ore at the least; so divided, as by their notes you may see in what places I found them. The soldiers say, many of your officers maintain their families out of that you send us; and that Newport hath an hundred pounds a year for carrying news. For every master you have yet sent can find the way as well as he, so that an hundred pounds might be spared, which is more than we have all, that help to pay him wages. Captain Ratliff is now called Sicklemore, a poor counterfeited imposture. I have sent you him home, lest the company should cut his throat. What he is, now every one can tell you: if he and Archer return again, they are sufficient to keep us always in factions. When you send again I entreat you rather send but thirty carpenters, husbandmen, gardeners, fishermen, blacksmiths, masons, and diggers up of trees, roots, well provided, than a thousand of such as we have: for except we be able both to lodge them, and feed them, the most will consume with want of necessaries before they can be made good for any thing. Thus if you please to consider this account, and of the unnecessary wages to Captain Newport, or his ship's so long lingering and staying here (for notwithstanding his boasting to leave us victuals for twelve months, though we had eighty-nine by this discovery lame and sick, and but a pint of corn a day for a man, we were constrained to give him three hogsheds of that to victual him homeward) or yet to send into Germany or Poland for glass men and the rest, till we be able to sustain ourselves, and relieve them when they come. It were better to give five hundred pound a ton for those gross commodities in Denmark, than send for them hither, till more necessary things be provided. For in over-toiling our weak and unskilful bodies, to satisfy this desire of present profit, we can scarce ever recover ourselves from one supply to another: and I humbly entreat you hereafter, let us know what we should receive, and not stand to the sailors courtesy to leave us what they please, else you may charge us with what you will, but we not you with any thing. These are the causes that have kept us in Virginia, from laying such a foundation, that ere this might have given much better content and satisfaction; but as yet you must not look for any profitable returns: so I humbly rest.

The names of those in this supply were these; with their proceedings and accidents:

Captain Peter Wynne,	} were appointed to be of the council.		
Captain Richard Waldo,			
Mr. Francis West, brother to the Lord La Warre.			
Thomas Graves,	} Gent.	William Sambage,	} Gent.
Raleigh Chroshaw,		Henry Leigh,	
Gabriel Beadle,		Henry Philpot,	
John Beadle,		Harmon Harrison,	
John Russell,		Daniel Tucker,	
William Russell,		Henry Collins,	
John Cuderington,		Hugh Wolleston,	
			John

John Hoult,	}	Gent.	Thomas Lavander,	}	Tradefmen.
Thomas Norton,			Henry Bell,		
George Yarrington,			Mr. Powell,		
George Burton,			David Ellis,		
Thomas Abbay,			Thomas Gibson,		
William Dowman,			Thomas Dawfe,	}	Labourers.
Thomas Maxes,			Thomas Mallard,		
Michael Lowick,			William Taylor,		
Mr. Hunt,			Thomas Fox,		
Thomas Forrest,			Nicholas Hancock,		
John Dauxe,			Walker,		
Thomas Phelps,	}	Tradefmen.	Williams,		
John Prat,			Floud,		
John Clarke,			Morley,		
Jeffrey Shortridge,			Rose,		
Dionis Oconor,			Scot,		
Hugh Wynne,			Hardwyn,		
David ap Hugh,			Millman,	}	Boys.
Thomas Bradley,			Hilliard,		
John Burras,					

Mrs. Forrest, and Anne Burras her maid; eight Dutchmen and Poles, with some others, to the number of seventy persons, &c.

These poor conclusions so affrighted us all with famine, that the president provided for Nansamund, and took with him Captain Wynne, and Mr. Scrivener, then returning from Captain Newport. These people also long denied him not only the four hundred baskets of corn they promised, but any trade at all; (excusing themselves they had spent most they had, and were commanded by Powhatan to keep that they had, and not to let us come into their river) till we were constrained to begin with them perforce. Upon the discharging of our muskets they all fled and shot not an arrow; the first house we came to we set on fire, which when they perceived, they desired we would make no more spoil, and they would give us half they had: how they collected it I know not, but before night they loaded our three boats; and so we returned to our quarter some four miles down the river, which was only the open woods under the lay of a hill, where all the ground was covered with snow, and hard frozen; the snow we digged away and made a great fire in the place; when the ground was well dried, we turned away the fire; and covering the place with a mat, there we lay very warm. To keep us from the wind we made a shade of another mat; as the wind turned we turned our shade, and when the ground grew cold we removed the fire. And thus many a cold winter night have we lain in this miserable manner, yet those that most commonly went upon all those occasions, were always in health, lusty, and fat. For sparing them this year, the next year they promised to plant purposely for us; and so we returned to James Town. About this time there was a marriage betwixt John Laydon and Anne Burras; which was the first marriage we had in Virginia.

Long he staid not, but fitting himself and Captain Waldo with two barges. From Chawopoweanock, and all parts thereabouts, all the people were fled, as being jealous of our intents, till we discovered the river and people of Apamatuck; where we found not much, that they had we equally divided, but gave them copper, and such things as contented

tented them in confideration. Mr. Scrivener and Lieutenant Percie went alfo abroad, but could find nothing.

The prefident feeing the procraftinating of time, was no courfe to live, refolved, with Captain Waldo, (whom he knew to be fure in time of need) to furprife Powhatan, and all his provifion, but the unwillingnefs of Captain Winne and Mr. Scrivener, for fome private refpect, plotted in England to ruin Captain Smith, did their beft to hinder the project; but the prefident, whom no perfuafions could perfuade to ftarve, being invited by Powhatan to come unto him; and if he would fend him but men to build him a houfe, give him a grindftone, fifty fwords, fome pieces, a cock and a hen, with much copper and beads, he would load his fhip with corn. The prefident, not ignorant of his devifes and fubtilty, yet unwilling to neglect any opportunity, prefently fent three Dutchmen and two Englifh, having fo fmall allowance, few were able to do any thing to purpofe; knowing there needed no better a caftle to effect this project, took order with Captain Waldo to fecond him, if need required; Scrivener he left his fubftitute, and fet forth with the pinnace, two barges, and forty-fix men, which only were fuch as voluntarily offered themfelves for his journey, the which, by reafon of Mr. Scrivener's ill fuccefs, was cenfured very desperate, they all knowing Smith would not return empty, if it were to be had; howfoever, it caufed many of thofe that he had appointed, to find excufes to ftay behind.

CHAP. VIII.—*Captain Smith's Journey to Pamaunkee.*

THE 29th of December he fet forward for Werowocomoco; his companions were thefe:

In the Discovery barge himfelf.

Robert Behethland

Nathaniel Graves

John Ruffell

Raleigh Chrafhow

Michael Sicklemore

Richard Worley

Gent.

Anas Todkill

William Love

William Bentley

Jeffery Shortridge

Edward Pifing

William Ward

Soldiers.

In the pinnace.

Lieut. Percy, brother to the Earlof Northumberland.

Mr. Francis Weft, brother to the Lord La Warre.

William Phittiplace, Captain of the pinnace.

Michael Phittiplace

Jeffery Abbott, ferjeant

William Tankard

George Yarrington

Gent.

James Browne

Edward Brinton

George Burton

Thomas Coe

John Dods

Henry Powell

Jonas Profit, mafter.

Robert Ford, clerk of the council.

Soldiers.

Thomas Gibfon, David Ellis, Nathaniel Peacock, failors; John Prat, George Acrig, James Read, Nicholas Hancock, James Watkins, Thomas Lambert, four Dutchmen, and Richard Salvage, were fent by land before, to build the houfe for Powhatan againft our arrival.

This company being victualled but for three or four days, lodged the firft night at Warraskoyack, where the prefident took fufficient provifion. This kind King did his beft to divert him from feeing Powhatan; but perceiving he could not prevail, he advifed in

this manner: "Captain Smith, you shall find Powhatan to use you kindly, but trust him not, and be sure he have no opportunity to seize on your arms, for he hath sent for you only to cut your throats." The captain thanking him for his good counsel, yet the better to try his love, desired guides to Chawwonock, for he would send a present to that King, to bind him his friend. To perform this journey was sent Mr. Sicklemore, a very valiant, honest, and painful soldier; with him two guides, and directions how to seek for the lost company of Sir Walter Raleigh, and silk grass. Then we departed thence, the president assuring the King perpetual love; and left with him Samuel Collier, his page, to learn the language.

So this King's deeds by sacred oath adjur'd,
More wary proves, and circumspect by odds;
Fearing at least his double forfeiture,
To offend his friends, and sin against his gods.

The next night being lodged at Kecoughtan; six or seven days the extreme wind, rain, frost, and snow, caused us to keep Christmas among the savages, where we were never more merry, nor fed on more plenty of good oysters, fish, flesh, wild-fowl, and good bread; nor ever had better fires in England, than in the dry smoaky houses of Kecoughtan; but departing thence, when we found no houses, we were not curious in any weather to lie three or four nights together under the trees by a fire, as formerly is said. An hundred and forty-eight fowls the president, Anthony Bagnall, and Serjeant Pising did kill at three shots. At Kiskiack, the frost and contrary winds forced us three or four days also (to suppress the insolence of those proud savages) to quarter in their houses, yet guard our barge, and cause them to give us what we wanted; though we were but twelve and himself, yet we never wanted shelter where we found any houses. The 12th of January we arrived at Werowocomoco, where the river was frozen nearly half a mile from the shore; but to neglect no time, the president with his barge so far had approached by breaking the ice, as the ebb left him amongst those oozy shoals, yet rather than to lie there frozen to death, by his own example he taught them to march near middle deep, a flight shot through this muddy frozen ooze. When the barge floated, he appointed two or three to return her on board the pinnacle. Where for want of water in melting the ice, they made fresh water, for the river there was salt. But in this march Mr. Russell, (whom none could persuade to stay behind) being somewhat ill, and exceeding heavy, so overtoiled himself, as the rest had much ado (ere he got ashore) to regain life into his dead benumbed spirits. Quartering in the next houses we found, we sent to Powhatan for provision, who sent us plenty of bread, turkeys, and venison; the next day, having feasted us after his ordinary manner, he began to ask us when we would be gone, feigning, he sent not for us, neither had he any corn, and his people much less; yet, for forty swords he would procure us forty baskets. The president shewing him the men there present that brought him the message and conditions, asked Powhatan how it chanced he became so forgetful; thereat the king concluded the matter with a merry laughter, asking for our commodities, but none he liked without guns and swords, valuing a basket of corn more precious than a basket of copper, saying, he could rate his corn, but not the copper.

Captain Smith seeing the intent of this subtle savage, began to deal with him after this manner: Powhatan, though I had many courses to have made my provision, yet believing your promises to supply my wants, I neglected all to satisfy your desire; and to testify my love, I sent you my men for your building, neglecting my own. What your people had you have engrossed, forbidding them our trade; and now you think, by

by consuming the time, we shall consume for want, not having to fulfil your strange demands. As for swords and guns, I told you long ago I had none to spare; and you must know those I have can keep me from want; yet steal or wrong you I will not, nor dissolve that friendship we have mutually promised, except you constrain me by our bad usage.

The King having attentively listened to this discourse, promised that both he and his country would spare him what he could, the which within two days they should receive. "Yet Captain Smith, (saith the King,) some doubt I have of your coming hither, that makes me not so kindly seek to relieve you as I would: for many do inform me, your coming hither is not for trade, but to invade my people, and possess my country, who dare not come to bring you corn, seeing you thus armed with your men. To free us of this fear, leave aboard your weapons, for here they are needless, we being all friends, and for ever Powhatans."

With many such discourses they spent the day, quartering that night in the King's houses. The next day he renewed his building, which he little intended should proceed. For the Dutchmen finding his plenty, and knowing our want, and perceiving his preparations to surprise us, little thinking we could escape both him and famine, (to obtain his favour) revealed to him so much as they knew of our estates and projects, and how to prevent them. One of them being of so great a spirit, judgement, and resolution, and a hireling that was certain of his wages for his labour, and ever well used, both he and his countrymen, that the president knew not whom better to trust; and not knowing any fitter for that employment, had sent him as a spy to discover Powhatan's intent, then little doubting his honesty, nor could ever be certain of his villany till near half a year after.

Whilst we expected the coming in of the country, we wrangled out of the King ten quarters of corn for a copper kettle, the which the president perceiving him much to affect, valued it at a much greater rate; but in regard of his scarcity he would accept it, provided we should have as much more the next year, or else the country of Monacan. Wherewith each seemed well contented, and Powhatan began to expostulate the difference of peace and war after this manner.

"Captain Smith, you may understand that I having seen the death of all my people thrice, and not any one living of those three generations but myself; I know the difference of peace and war better than any in my country. But now I am old and ere long must die, my brethren, namely Opitchapam, Opechancanough, and Kekataugh, my two sisters, and their two daughters, are distinctly each others successors. I wish their experience no less than mine, and your love to them no less than mine to you. But this bruit from Nandsamund, that you are come to destroy my country, so much affrighteth all my people as they dare not visit you. What will it avail you to take that by force you may quickly have by love, or to destroy them that provide you food? What can you get by war, when we can hide our provisions and fly to the woods? whereby you must famish by wronging us, your friends. And why are you thus jealous of our loves, seeing us thus unarmed, and both do, and are willing still to feed you, with that you cannot get but by our labours? Think you I am so simple not to know it is better to eat good meat, lie well, and sleep quietly with my women and children, laugh and be merry with you, have copper, hatchets, or what I want, being your friend, than be forced to fly from all, to lie cold in the woods, feed upon acorns, roots, and such trash, and be so hunted by you that I can neither rest, eat, nor sleep; but my tired men must watch, and if a twig but break, every one crieth, There cometh Captain Smith! then must I fly I know not whither: and thus with miserable fear end my miserable life, leaving my

my pleasures to such youths as you, which, through your rash unadvisedness, may quickly as miserably end, for want of that you never know where to find. Let this therefore assure you of our loves, and every year our friendly trade shall furnish you with corn; and now also, if you would come in friendly manner to see us, and not thus with your guns and swords as to invade your foes."

To this subtle discourse the president thus replied:

"Seeing you will not rightly conceive of our words, we strive to make you know our thoughts by our deeds; the vow I made you of my love, both myself and my men have kept. As for your promise I find it every day violated by some of your subjects: yet we finding your love and kindness, our custom is so far from being ungrateful, that for your sake only, we have curbed our thirsting desire of revenge; else had they known as well the cruelties we use to our enemies, as our true love and courtesy to our friends. And I think your judgement sufficient to conceive, as well by the adventures we have undertaken, as by the advantage we have (by our arms) of yours, that had we intended you any hurt, long ere this we could have effected it. Your people coming to James Town are entertained with their bows and arrows without any exceptions; we esteeming it with you as it is with us, to wear our arms as our apparel. As for the danger of our enemies, in such wars consist our chiefest pleasure: for your riches we have no use: as for the hiding your provisions, or by your flying to the woods, we shall not so unadvisedly starve as you conclude; your friendly care in that behalf is needless, for we have a rule to find beyond your knowledge."

Many other discourses they had, till at last they began to trade. But the King seeing his will would not be admitted as a law, our guard dispersed, nor our men disarmed, he sighing breathed his mind once more in this manner.

"Captain Smith, I never use any Werowance so kindly as yourself, yet from you I receive the least kindness of any. Captain Newport gave me swords, copper, clothes, a bed, towels, or what I desired; ever taking what I offered him, and would send away his guns when I intreated him: none doth deny to lie at my feet, or refuse to do what I desire, but only you; of whom I can have nothing but what you regard not, and yet you will have whatsoever you demand. Captain Newport you call father, and so you call me; but I see for all us both you will do what you list, and we must both seek to content you. But if you intend so friendly as you say, send hence your arms, that I may believe you; for you see the love I bear you, doth cause me thus nakedly to forget myself."

Smith seeing this savage but trifle the time to cut his throat, procured the savages to break the ice that his boat might come to fetch his corn and him: and gave order for more men to come on shore, to surprise the King, with whom also he but trifled the time till his men were landed: and to keep him from suspicion, entertained the time with this reply:

"Powhatan you must know, as I have but one God, I honour but one King; and I live not here as your subject, but as your friend to pleasure you with what I can. By the gifts you bestow on me, you gain more than by trade: yet would you visit me as I do you, you should know it is not our custom to sell our courtesy as a vendible commodity. Bring all your country with you for your guard, I will not dislike it as being over jealous. But to content you, to-morrow I will leave my arms, and trust to your promise. I call you father indeed, and as a father you shall see I will love you: but the small care you have of such a child caused my men to persuade me to look to myself."

By this time Powhatan having knowledge his men were ready whilst the ice was a breaking, with his luggage, women, and children, fled. Yet to avoid suspicion, left two

or three of the women talking with the captain, whilst he secretly ran away, and his men that secretly beset the house. Which being presently discovered to Captain Smith, with his pistol, sword, and target he made such a passage among these naked devils, that at his first shoot, they next him tumbled one over another, and the rest quickly fled some one way, some another: so that without any hurt, only accompanied with John Russell, he obtained the corps du guard. When they perceived him so well escaped, and with his eighteen men (for he had no more with him on shore), to the uttermost of their skill they sought excuses to dissemble the matter: and Powhatan to excuse his flight and the sudden coming of this multitude, sent our Captain a great bracelet and a chain of pearl, by an ancient orator that bespoke us to this purpose, perceiving even then from our pinnace, a barge and men departing and coming unto us.

"Captain Smith, our Werowance is fled, fearing your guns, and knowing when the ice was broken there would come more men, sent these numbers but to guard his corn from stealing, that might happen without your knowledge: now though some be hurt by your misprision, yet Powhatan is your friend and so will for ever continue. Now since the ice is open, he would have you send away your corn, and if you would have his company, send away also your guns, which so affrighteth his people, that they dare not come to you as he promised they should."

Then having provided baskets for our men to carry our corn to the boats, they kindly offered their service to guard our arms that none should steal them. A great many they were of goodly well proportioned fellows, as grim as devils; yet the very sight of cocking our matches and being to let fly, a few words caused them to leave their bows and arrows to our guard, and bear down our corn on their backs; we needed not importune them to make dispatch. But our barges being left on the ooze by the ebb, caused us stay till the next high water, so that we returned again to our old quarter. Powhatan and his Dutchmen bursting with desire to have the head of Captain Smith, for if they could but kill him they thought all was theirs, neglected not any opportunity to effect his purpose. The Indians with all the merry sports they could devise, spent the time till night, then they all returned to Powhatan, who all this time was making ready his forces to surprise the house and him at supper, notwithstanding the eternal all-seeing God did prevent him, and by a strange means; for Pocahontas, his dearest jewel and daughter, in that dark night came through the irksome woods, and told our captain great cheer should be sent us by-and-by, but Powhatan and all the power he could make, would after come kill us all, if they that brought it could not kill us with our own weapons when we were at supper. Therefore if we would live she wished us presently to be gone. Such things as she delighted in he would have given her, but with the tears running down her cheeks, she said she durst not be seen to have any, for if Powhatan should know it she were but dead, and so she ran away by herself as she came. Within less than an hour came eight or ten lusty fellows with great platters of venison and other victuals, very importunate to have us put out our matches (whose smoke made them sick) and sit down to our victuals. But the captain made them taste every dish, which done, he sent some of them back to Powhatan, to bid him make haste, for he was prepared for his coming. As for them he knew they came to betray him at his supper, but he would prevent them and all their other intended villanies, so that they might be gone. Not long after came more messengers to see what news, not long after them others. Thus we spent the night as vigilantly as they till it was high water, yet seemed to the savages as friendly as they to us, and that we were so desirous to give Powhatan content, as he requested, we did leave him Edward Brynton to kill him fowl, and the Dutchmen to
finish

finish his house; thinking at our return from Pamaunkee the frost would be gone, and then we might find a better opportunity if necessity did occasion it, little dreaming yet of the Dutchmen's treachery, whose humour well suited this verse:

Is any free, that may not live as freely as he list?

Let us live so, then we're as free and brutish as the best.

CHAP. IX. — *How we escaped surprising at Pamaunkee.*

WE had no sooner set sail but Powhatan returned, and sent Adam and Francis (two stout Dutchmen) to James Town, who feigning to Captain Winne that all things were well, and that Captain Smith had use of their arms, wherefore they requested new (the which were given them) they told him their coming was for some extraordinary tools and shift of apparel, by which colourable excuse they obtained six or seven more to their confederacy, such expert thieves, that presently furnished them with a great many swords, pike-heads, pieces, shot, powder, and such like, savages they had at hand to carry it away, and the next day they returned unsuspected, leaving their confederates to follow, and in the interim to convey them such things as they could, for which service they should live with Powhatan, as his chief affected, free from those miseries that would happen to the colony. Samuel, their other consort, Powhatan kept for their pledge, whose diligence had provided them three hundred of their kind of hatchets, the rest fifty swords, eight pieces, and eight pikes. Brynton and Richard Salvage seeing the Dutchmen so diligent to accommodate the savages with weapons, attempted to have gotten to James Town, but they were apprehended, and expected ever when to be put to death.

Within two or three days we arrived at Pamaunkee, the king as many days entertained us with feasting and much mirth. And the day appointed to begin our trade, the president, Lieutenant Percie, Mr. West, Mr. Russell, Mr. Behethland, Mr. Crashaw, Mr. Powell, Mr. Ford, and some others to the number of fifteen, went up to Opechancanough's house a quarter of a mile from the river, where we found nothing but a lame fellow and a boy, and all the houses round about of all things abandoned. Not long we stayed ere the king arrived, and after him came divers of his people laden with bows and arrows, but such pinching commodities, and those esteemed at such a value, as our captain began with the king after this manner:

"Opechancanough, the great love you profess with your tongue seems mere deceit by your actions. Last year you kindly freighted our ship, but now you have invited me to starve with hunger, you know my want, and I your plenty, of which by some means I must have part, remember it is fit for kings to keep their promise. Here are my commodities, whereof take your choice, the rest I will proportion fit bargains for your people."

The King seemed kindly to accept his offer, and the better to colour his project, told us what they had to our own content, promising the next day more company, better provided. The barges and pinnace being committed to the charge of Mr. Phetipace, the president, with his old fifteen, marched up to the King's house, where we found four or five men newly arrived, each with a great basket. Not long after came the King, who with a strained cheerfulness held us with discourse what pains he had taken to keep his promise; till Mr. Russell brought us in news that we were all betrayed, for at least seven hundred savages well armed had environed the house and beset the fields. The King conjecturing what Russell related, we could well

well perceive how the extremity of his fear bewrayed his intent, whereat some of our company seeming dismayed with the thought of such a multitude, the captain encouraged us to this effect:

“ Worthy countrymen, were the mischiefs of my seeming friends no more than the danger of these enemies, I little cared were they as many more, if you dare do but as I. But this is my torment, that if I escape them our malicious council with their open mouthed minions, will make me such a peace-breaker (in their opinions in England) as will break my neck. I could wish those here, that make these seem-saints and me an oppressor. But this is the worst of all, wherein I pray you aid me with your opinions. Should we begin with them and surprize the King, we cannot keep him and defend well ourselves. If we should each kill our man and so proceed with all in the house, the rest will all fly, then shall we get no more than the bodies that are slain, and so starve for victuals. As for their fury it is the least danger, for well you know, being alone assaulted with two or three hundred of them, I made them by the help of God, compound to save my life. And we are sixteen, and they but seven hundred at the most; and assure yourselves, God will so assist us that if you dare stand but to discharge your pieces, the very smoke will be sufficient to affright them. Yet howsoever, let us fight like men and not die like sheep, for by that means you know God hath often delivered me, and so I trust will now. But first I will deal with them to bring it to pass we may fight for something, and draw them to it by conditions. If you like this motion promise me you will be valiant.”

The time not permitting any argument, all vowed to execute whatsoever he attempted or die: whereupon the captain in plain terms told the King this:

“ I see Opechancanough your plot to murder me, but I fear it not. As yet your men and mine have done no harm but by our direction. Take therefore your arms, you see mine, my body shall be as naked as yours, the isle in your river is a fit place if you be contented, and the conqueror of us two shall be lord and master over all our men. If you have not enough take time to fetch more and bring what number you will, so every one bring a basket of corn, against all which I will stake the value in copper, you see I have but fifteen, and our game shall be, the conqueror take all.”

The King being guarded with forty or fifty of his chief men, seemed kindly to appease Smith's suspicion of unkindness, by a great present at the door, they entreated him to receive; this was to draw him out of the door, where the bait was guarded with at least two hundred men, and thirty lying under a great tree (that lay thwart as a barricado) each his arrow knockt ready to shoot. The president commanded one to go see what kind of deceit this was, and to receive the present, but he refused to do it, yet the gentlemen and all the rest were importunate to go, but he would not permit them, being vexed at that coward: and commanded Lieutenant Percie, Mr. West, and the rest to make good the house, Mr. Powell and Mr. Behethland he commanded to guard the door, and in such a rage snatched the King by his long lock in the midst of his men, with his pistol ready bent against his breast. Thus he led the trembling King near dead with fear amongst all his people, who delivering the captain his vambrace, bow, and arrows, all his men were easily entreated to cast down their arms, little dreaming any durst in that manner have used their King, who then to escape himself bestowed his presents in good sadness, and causing a great many of them come before him unarmed, holding the King by the hair (as is said) he spake to them to this effect:

“ I see (you Pamaunkees) the great desire you have to kill me, and my long suffering your injuries hath emboldened you to this presumption. The cause I have for-

borne-

borne your insolences is the promise I made you (before the God I serve) to be your friend till you give me just cause to be your enemy. If I keep this vow my God will keep me, you cannot hurt me, if I break it, he will destroy me. But if you shoot but one arrow to shed one drop of blood of any of my men, or steal the least of these beads or copper, I spurn here before you with my foot; you shall see I will not cease revenge (if once I begin) so long as I can hear where to find one of your nation that will not deny the name of Pamaunkee. I am not now at Rassaweak half drowned with mire, where you took me prisoner, yet then for keeping your promise and your good usage and saving my life, I so affect you, that your denials of your treachery do half persuade me to mistake myself. But if I be the mark you aim at, here I stand, shoot he that dare. You promised to freight my ship ere I departed, and so you shall, or I mean to load her with your dead carcasses, yet, if as friends you will come and trade, I once more promise not to trouble you, except you give me the first occasion; and your King shall be free and be my friend, for I am not come to hurt him or any of you."

Upon this away went their bows and arrows, and men, women, and children, brought in their commodities, two or three hours they so thronged about the president and so overwearied him as he retired himself to rest, leaving Mr. Behethland and Mr. Powell to receive their presents; but some savages perceiving him fast asleep, and the guard somewhat carelessly dispersed, forty or fifty of their choice men, each with a club or an English sword in his hand, began to enter the house, with two or three hundred others that pressed to second them. The noise and haste they made in did so shake the house they awoke him from his sleep, and being half amazed with this sudden sight, betook him strait to his sword and target, Mr. Chrashaw and some others charged in like manner, whereat they quickly thronged faster back than before forward. The house thus cleansed, the King and some of his ancients we kept yet with him, who with a long oration excused this intrusion. The rest of the day was spent with much kindness, the company again renewing their presents with their best provisions, and whatsoever he gave them they seemed therewith well contented.

Now in the mean while since our departure, this happened at our fort. Mr. Scrivener having received letters from England, to make himself either Cæsar or nothing, he began to decline in his affection to Captain Smith, that ever regarded him as himself, and was willing to cross the surprising of Powhatan. Some certain days after the president's departure, he would needs go visit the Isle of Hogs, and took with him Captain Waldo (though the president had appointed him to be ready to second his occasions) with Mr. Anthony Gosnoll and eight others; but so violent was the wind (that extreme frozen time) that the boat sunk, but where or how none doth know. The skiff was much over-loaden, and would scarce have lived in that extreme tempest had she been empty; but by no persuasion he could be diverted, though both Waldo and an hundred others doubted as it happened. The savages were the first that found their bodies, which so much the more encouraged them to effect their projects. To advertise the president of this heavy news, none could be found would undertake it, but the journey was often refused of all in the fort, until Mr. Richard Wyffin undertook alone the performance thereof.

In this journey he was encountered with many dangers and difficulties in all parts as he passed. As for that night he lodged with Powhatan, perceiving such preparation for war, not finding the president there, he did assure himself some mischief was intended. Pocahontas hid him for a time, and sent them who pursued him the clean contrary way to seek him; but by her means, and extraordinary bribes, and much trouble in three days travel, at length he found us in the midst of these turmoils.

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This unhappy news the president swore him to conceal from the company, and so dissembling his sorrow with the best countenance he could, when the night approached, went safely on board with all his soldiers; leaving Opechancanough at liberty, according to his promise, the better to have Powhatan in his return.

Now so extremely Powhatan had threatened the death of his men, if they did not by some means kill Captain Smith, that the next day they appointed all the country should come to trade unarmed; yet unwilling to be treacherous, but that they were constrained, hating fighting with him almost as ill as hanging, such fear they had of bad success. The next morning the sun had not long appeared, but the fields appeared covered with people and baskets, to tempt us on shore; but nothing was to be had without his presence, nor they would not endure the sight of a gun. When the president saw them begin to depart, being unwilling to loose such a booty, he so well contrived the pinnace, and his barges with ambuscades, as only with Lieutenant Percy, Mr. West, and Mr. Russell, with their arms, went on shore; others he appointed unarmed to receive what was brought. The savages flocked before him in heaps, and the bank serving as a trench for a retreat, he drew them fair open to his ambuscades. For he not being to be persuaded to go visit their king, the king knowing the most of them unarmed, came to visit him with two or three hundred men, in the form of two half moons; and with some twenty men, and many women laden with painted baskets. But when they approached somewhat near us, their women and children fled. For when they had environed and beset the fields in this manner, they thought their purpose sure, yet so trembled with fear as they were scarce able to nock their arrows; Smith standing with his three men ready bent, beholding them till they were within danger of our ambuscades, who upon the word discovered themselves, and he retired to the barge, which the savages no sooner perceived than away they fled, esteeming their heels for their best advantage.

That night we sent Mr. Cheshaw and Mr. Ford to James Town, to Captain Winne. In the way between Werowocomoco and the fort, they met four or five of the Dutchmen's confederates going to Powhatan; the which to excuse those gentlemen's suspicion of their running to the savages, returned to the fort, and there continued.

The savages hearing our barge go down the river in the night, were so terribly afraid, that we sent for more men (we having so much threatened their ruin, and the raising of their houses, boats, and wires), that the next day the King sent our captain a chain of pearl, to alter his purpose and stay his men; promising, though they wanted themselves, to freight our ship and bring it aboard to avoid suspicion. So that five or six days after, from all parts of the country within ten or twelve miles, in the extreme frost and snow, they brought us provision on their naked backs.

Yet notwithstanding this kindness and trade, had their art and poison been sufficient, the president, Mr. West, and some others, had been poisoned; it made them sick, but expelled itself. Wecuttanow, a stout young fellow, knowing he was suspected for bringing this present of poison, with forty or fifty of his chief companions (seeing the president but with a few men at Potauncak,) so proudly braved it, as though he expected to encounter a revenge. Which the president perceiving in the midst of his company, did not only beat, but spurned like a dog, as scorning to do him any worse mischief. Whereupon all of them fled into the woods, thinking they had done a great matter to have so well escaped; and the townsmen remaining, presently freighted our barge to be rid of our companies; framing many excuses to excuse Wecuttanow, (being son to their chief King, but Powhatan) and told us if we would shew them him

that brought the poison, they would deliver him to us to punish as we pleased. Men may think it strange there should be such a stir for a little corn; but had it been gold, with more ease we might have got it; and had it wanted, the whole colony had starved. We may be thought very patient to endure all those injuries, yet only with fearing them we got what they had. Whereas if we had taken revenge, then, by their loss, we should have lost ourselves. We searched also the countries of Youghtanund and Matapanient, where the people imparted that little they had with such complaints and tears from the eyes of women and children, as he had been too cruel to have been a Christian, that would not have been satisfied and moved with compassion. But had this happened in October, November, and December, when that unhappy discovery of Monacan was made, we might have freighted a ship of forty tuns, and twice as much might have been had from the rivers of Rapahanock, Patawomek, and Pawtuxunt.

The main occasion of our thus temporizing with them was to part friends as we did, to give the less cause of suspicion to Powhatan to fly, by whom we now returned with a purpose to have surprised him and his provision. For effecting whereof (when we came against the town) the president sent Mr. Wyffin and Mr. Coe ashore to discover and make way for his intended project. But they found that those damned Dutchmen had caused Powhatan to abandon his new house and Werowocomoco, and to carry away all his corn and provision; and the people they found so ill affected, that they were in great doubt how to escape with their lives. So the president finding his intent frustrated, and that there was nothing now to be had, and therefore an unfit time to revenge their abuses, sent Mr. Michael Phittiplace by land to James Town, where we sailed with all the speed we could; we having in this journey (for twenty-five pounds of copper, and fifty pounds of iron and beads) enough to keep forty-six men six weeks, and every man for his reward a month's provision extraordinary (no trade being allowed but for the store); we got near two hundred pounds weight of deer suet, and delivered to the Cape merchant four hundred and seventy-nine bushels of corn.

Those temporizing proceedings to some may seem too charitable, to such a daily daring, treacherous people: to others not pleasing, that we washed not the ground with their blood, nor shewed such strange inventions in mangling, murdering, ransacking, and destroying (as did the Spaniards) the simple bodies of such ignorant souls; nor delightful, because not stuffed with relations of heaps and mines of gold and silver, nor such rare commodities as the Portuguese and Spaniards found in the East and West Indies; the want whereof hath begot us (that were the first undertakers) no less scorn and contempt, than the noble conquests and valiant adventures beautified with it, praise and honour. Too much I confess the world cannot attribute to their ever memorable merit: and to clear us from the blind world's ignorant censure, these few words may suffice any reasonable understanding.

It was the Spaniards good hap to happen in those parts where were infinite numbers of people, who had manured the ground with that providence, it afforded victuals at all times. And time had brought them to that perfection, they had the use of gold and silver, and the most of such commodities as those countries afforded: so that, what the Spaniard got was chiefly the spoil and pillage of those country people, and not the labours of their own hands. But had those fruitful countries been as savage, as barbarous, as ill peopled, as little planted, laboured, and manured, as Virginia, their proper labours it is likely would have produced as small profit as ours. But had Virginia been peopled, planted, manured, and adorned with such store of precious jewels,
and

and rich commodities as was the Indies, then had we not gotten and done as much as by their examples might be expected from us; the world might then have traduced us and our merits, and have made shame and infamy our recompence and reward.

But we chanced in a land even as God made it, where we found only an idle, improvident, scattered people, ignorant of the knowledge of gold or silver, or any commodities, and careless of any thing but from hand to mouth, except baubles of no worth; nothing to encourage us but what accidentally we found nature afforded; which, ere we could bring to recompense our pains, defray our charges, and satisfy our adventurers, we were to discover the country, subdue the people, bring them to be tractable, civil, and industrious, and teach them trades, that the fruits of their labours might make us some recompence, or plant such colonies of our own, that must first make provision how to live of themselves, ere they can bring to perfection the commodities of the country, which doubtless will be as commodious for England as the West Indies for Spain, if it be rightly managed, notwithstanding all our home-bred opinions that will argue the contrary, as formerly some have done against the Spaniards and Portuguese. But to conclude, against all rumour of opinion, I only say this, for those that the three first years began this plantation, notwithstanding all their factions, mutinies, and miseries, so gently corrected and well prevented; peruse the Spanish decades, the relations of Mr. Hackluit, and tell me how many ever, with such small means as a barge of twenty-two tons, sometimes with seven, eight, or nine, or but at most twelve or sixteen men, did ever discover so many fair and navigable rivers, subject to so many several kings, people, and nations, to obedience and contribution, with so little bloodshed.

And if in the search of those countries we had happened where wealth had been, we had as surely had it as obedience and contribution; but if we have overskipped it, we will not envy them that shall find it: yet can we not but lament it was our fortunes to end, when we had but only learned how to begin, and found the right course how to proceed.

By RICHARD WYFFIN, WILLIAM PHITTIPLACE, JEFFREY ABBOT,
and ANAS TODKILL.

CHAP. X.—*How the Savages became subject to the English.*

WHEN the ships departed, all the provision of the store (but that the president had gotten) was so rotten with the last summer's rain, and eaten with the rats and worms, as the hogs would scarcely eat it; yet it was the soldiers' diet till our return, so that we found nothing done, but our victuals spent, and the most part of our tools, and a good part of our arms conveyed to the savages. But now casting up the store, and finding sufficient till the next harvest, the fear of starving was abandoned, and the company divided into tens, fifteens, or as the business required; six hours each day was spent in work, the rest in pastime and merry exercises; but the untowardness of the greatest number caused the president to advise as followeth:

"Countrymen, the long experience of our late miseries, I hope, is sufficient to persuade every one to a present correction of himself, and think not that either my pains, nor the adventurers' purses, will ever maintain you in idleness and sloth. I speak not this to you all, for divers of you I know deserve both honour and reward, better than is yet here to be had; but the greater part must be more industrious or starve, however you have been heretofore tolerated by the authority of the council, from that I

have often commanded you. You see now that power resteth wholly in myself: you must obey this now for a law, that he that will not work shall not eat (except by sickness he be disabled); for the labours of thirty or forty honest and industrious men shall not be consumed to maintain a hundred and fifty idle loiterers: and though you presume the authority here is but a shadow, and that I dare not touch the lives of any, but my own must answer it, the letters patent shall each week be read to you, whose contents will tell you the contrary. I would wish you, therefore, without contempt, seek to observe these orders set down, for there are now no more counsellors to protect you, nor curb my endeavours. Therefore, he that offendeth let him assuredly expect his due punishment."

He made also a table, as a public memorial of every man's deserts, to encourage the good, and with shame to spur on the rest to amendment. By this many became very industrious, yet more by punishment performed their business, for all were so tasked, that there was no excuse could prevail to deceive him; yet the Dutchmen's comforts so closely conveyed them powder, shot, swords, and tools, that though we could find the defect, we could not find by whom till it was too late.

All this time the Dutchmen remaining with Powhatan (who kindly entertained them to instruct the savages the use of our arms), and their comforts not following them as they expected, to know the cause they sent Francis, their companion, a stout young fellow, disguised like a savage, to the glass-house, a place in the woods, near a mile from James Town, where was their rendezvous for all their unsuspected villainy. Forty men they procured to lie in ambuscade for Captain Smith, who no sooner heard of this Dutchman, but he sent to apprehend him (but he was gone); yet to cross his return to Powhatan, the Captain presently dispatched twenty shot after him, himself returning from the glass-house alone. By the way he encountered the King of Paspahegh, a most strong, stout savage, whose persuasions not being able to persuade him to his ambush, seeing him only armed but with a falchion, attempted to have shot him; but the president prevented his shot by grappling with him, and the savages as well prevented him for drawing his falchion, and perforce bore him into the river to have drowned them. Long they struggled in the water, till the president got such hold on his throat, he had near strangled the King; but having drawn his falchion to cut off his head, seeing how pitifully he begged his life, he led him prisoner to James Town, and put him in chains.

The Dutchman ere long was also brought in, whose villainy, though all this time it was suspected, yet he feigned such a formal excuse, that for want of language Captain Winne understood him not rightly, and for their dealings with Powhatan, that to save their lives they were constrained to accommodate his arms, of whom he extremely complained to have detained them perforce, and that he made this escape with the hazard of his life, and meant not to have returned, but was only walking in the woods to gather walnuts. Yet for all this fair tale there was so small appearance of truth, and the plain confession of Paspahegh of his treachery, he went by the heels, Smith purposing to regain the Dutchmen by the saving his life. The poor savage did his best by his daily messengers to Powhatan, but all returned that the Dutchmen would not return, neither did Powhatan stay them, and to bring them fifty miles on his men's backs they were not able. Daily this King's wives, children, and people came to visit him with presents, which he liberally bestowed to make his peace. Much trust they had in the president's promise; but the King finding his guard negligent, though fettered yet escaped. Captain Winne thinking to pursue him, found such troops of savages to hinder his passage, as they exchanged many volleys of shot for flights of arrows.

arrows. Captain Smith hearing of this in returning to the fort, took two savages prisoners, called Kemps and Tuffore, the two most exact villains in all the country. With these he sent Captain Winne and fifty choice men, and Lieutenant Percie, to have regained the King, and revenged this injury, and so had done, if they had followed his directions, or been advised with those two villains, that would have betrayed both King and kindred for a piece of copper; but he trifling away the night, the savages the next morning, by the rising of the sun, braved him to come ashore to fight: a good time both sides let fly at other, but we heard of no hurt, only they took two canoes, burnt the King's house, and so returned to James Town.

The president, fearing those bravadoes would but encourage the savages, began again himself to try his conclusions, whereby six or seven were slain, as many made prisoners. He burnt their houses, took their boats, with all their fishing wires, and planted some of them at James Town for his own use, and now resolved not to cease till he had revenged himself of all who had injured him. But in his journey passing by Paspahegh, towards Chickahamania, the savages did their best to draw him to their ambuscades; but seeing him regardlessly pass their country, all shewed themselves in their bravest manner. To try their valour he could not but let fly; and ere he could land, they no sooner knew him, but they threw down their arms and desired peace. Their orator was a lusty young fellow, called Okaning, whose worthy discourse deserveth to be remembered. And thus it was:

"Captain Smith, my master is here present in the company, thinking it Captain Winne, and not you, (of him he intended to have been revenged) having never offended him. If he hath offended you in escaping your imprisonment, the fishes swim, the fowls fly, and the very beasts strive to escape the snare and live. Then blame not him being a man. He would entreat you remember, you being a prisoner, what pains he took to save your life. If since he hath injured you, he was compelled to it: but howsoever, you have revenged it with our too great loss. We perceive and well know you intend to destroy us, that are here to intreat and desire your friendship, and to enjoy our houses, and plant our fields, of whose fruit you shall participate: otherwise you will have the worse by our absence; for we can plant any where, though with more labour; and we know you cannot live if you want our harvest, and that relief we bring you. If you promise us peace, we will believe; if you proceed in revenge, we will abandon the country."

Upon these terms the president promised them peace, till they did us injury, upon condition they should bring in provision. Thus all departed good friends, and so continued till Smith left the country.

Arriving at James Town, complaint was made to the president that the Chickahamians, who all this while continued trade, and seemed our friends, by colour thereof were the only thieves: and amongst other things a pistol being stolen, and the thief fled, there was apprehended two proper young fellows, that were brothers, known to be his confederates. Now to regain this pistol, the one was imprisoned, the other was sent to return the pistol again within twelve hours, or his brother to be hanged: yet the president, pitying the poor naked savage in the dungeon, sent him victuals, and some charcoal for a fire. Ere midnight his brother returned with the pistol; but the poor savage in the dungeon was so smothered with the smoke he had made, and so piteously burnt, that we found him dead. The other most lamentably bewailed his death, and broke forth into such bitter agonies, that the president to quiet him told him, that if hereafter they would not steal, he would make him alive again: but he little thought he could be recovered; yet we doing our best with aqua vitæ and vinegar,

gar, it pleased God to restore him again to life, but so drunk and affrighted, that he seemed lunatic, the which as much tormented and grieved the other, as before to see him dead; of which malady, upon promise of their good behaviour, the president promised to recover him, and so caused him to be laid by a fire to sleep, who in the morning, having well slept, had recovered his perfect senses, and then being dressed of his burning, each a piece of copper given them, they went away so well contented, that this was spread among all the savages for a miracle, that Captain Smith could make a man alive that was dead.

Another ingenious savage of Powhatans, having gotten a great bag of powder, and the back of an armour, at Werowocomoco, amongst many of his companions, to shew his extraordinary skill, he dried it on the back, as he had seen the soldiers at James Town; but he dried it so long, they peeping over it to see his skill, it took fire, and blew him to death, and one or two more, and the rest so scorched, that they had little pleasure to meddle any more with powder.

These and many other such pretty accidents so amazed and affrighted both Powhatan and all his people, that from all parts, with presents, they desired peace, returning many stolen things which we never demanded, nor thought of; and after that, those that were taken stealing, both Powhatan and his people have sent them back to James Town, to receive their punishment; and all the country became absolutely as free for us as for themselves.

CHAP. XI. — *What was done in three Months, having Viſuals; the Store devoured by Rats; how we lived three Months on such natural Fruits as the Country afforded.*

NOW we so quietly followed our business, that in three months we made three or four lasts of tar, pitch, and soap-ashes, produced a trial of glass, made a well in the fort of excellent sweet water, which till then was wanting; built some twenty houses, recovered our church, provided nets and wires for fishing; and to stop the disorders of our disorderly thieves, and the savages, built a blockhouse in the neck of our isle, kept by a garrison to entertain the savages' trade, and none to pass or repass, savage nor christian, without the president's order; thirty or forty acres of ground we digged and planted; of three sows in eighteen months increased sixty and odd pigs, and near five hundred chickens brought up themselves, without having any meat given them; but the hogs were transported to Hog Isle, where also we built a blockhouse, with a garrison, to give us notice of any shipping, and for their exercise they made a clapboard and wain-scot, and cut down trees; we built also a fort for a retreat, near a convenient river, upon a high commanding hill, very hard to be assaulted, and easy to be defended; but ere it was finished, this defect caused a stay.

In searching our casked corn, we found it half rotten, and the rest so consumed with so many thousands of rats, that increased so fast; but their original was from the ships, as we knew not how to keep that little we had. This did drive us all to our wit's end, for there was nothing in the country but what nature afforded; until this time, Kemps and Tasso were fettered prisoners, and did double task and taught us how to order and plant our fields, whom now for want of victuals we set at liberty, but so well they liked our companies, they did not desire to go from us, and to express their loves, for sixteen days continuance the country people brought us (when least) one hundred a day of squirrels, turkies, deer, and other wild beasts: but this want of corn occasioned the end of all our works, it being work sufficient to provide victuals. Sixty or eighty, with Ensign Laxon, were sent down the river to live upon oysters, and twenty, with

Lieutenant Percy, to try for fishing at Point Comfort ; but in six weeks they would not agree once to cast out the net, he being sick and burnt fore with gunpowder. Mr. West with as many went up to the falls, but nothing could be found but a few acorns ; of that in store every man had his equal proportion. Till this present, by the hazard and endeavours of some thirty or forty, this whole colony had ever been fed ; we had more sturgeon than could be devoured by dog and man, of which the industrious, by drying and pounding, mingled with caviare, forell, and other wholesome herbs, would make bread and good meat ; others would gather as much tockwhogh roots in a day as would make them bread a week ; so that of those wild fruits, and what we caught, we lived very well in regard of such a diet ; but such was the strange condition of some hundred and fifty, that had they not been forced, nolens, volens, perforce to gather and prepare their victuals, they would all have starved, or have eaten one another. Of those wild fruits the savages often brought us, and for that the president would not fulfil the unreasonable desire of those distracted gluttonous loiterers, to sell not only our kettles, hoes, tools, and iron, nay, swords, pieces, and the very ordnance and houses, might they have prevailed to have been but idle ; for those savage fruits, they would have imparted all to the savages, especially for one basket of corn they heard of to be at Powhatan, fifty miles from our fort. Though he bought near half of it to satisfy their humours, yet to have had the other half they would have sold their souls, though not sufficient to have kept them a week. Thousands were their exclamations, suggestions, and devices, to force him to those base inventions, to have made it an occasion to abandon the country. Want perforce constrained him to endure their exclaiming follies, till he found out the author, one Dyer, a most crafty fellow, and his ancient maligner, whom he worthily punished, and with the rest he argued the case in this manner :

“ Fellow soldiers, I did little think any so false to report, or so many to be so simple to be persuaded, that I either intend to starve you, or that Powhatan at this present hath corn for himself, much less for you ; or that I would not have it, if I knew where it was to be had : neither did I think any so malicious as I now see a great many ; yet it shall not so passionate me, but I will do my best for my most maligner. But dream no longer of this vain hope from Powhatan ; not that I will longer forbear to force you from your idleness, and punish you if you rail ; but if I find any more runners for Newfoundland with the pinnace, let him assuredly look to arrive at the gallows. You cannot deny but that by the hazard of my life many a time I have saved yours, when (might your own wills have prevailed,) you would have starved ; and will do still whether I will or no ; but I protest by that God that made me, since necessity hath not power to force you to gather for yourselves those fruits the earth doth yield, you shall not only gather for yourselves, but those that are sick. As yet I never had more from the store than the worst of you, and all my English extraordinary provision that I have, you shall see me divide it amongst the sick ; and this savage trash you so scornfully repine at, being put in your mouths, your stomachs can digest ; if you would have better, you should have brought it, and therefore I will take a course you shall provide what is to be had. The sick shall not starve, but equally share of all our labours ; and he that gathereth not every day as much as I do, the next day shall be set beyond the river, and be banished from the fort as a drone, till he amend his conditions or starve.” But some would say with Seneca,

I know those things thou say'st are true, good nurse,
But fury forceth me to follow worse ;
My mind is hurried headlong up and down,
Desiring better counsel, yet finds none.

This

This order many murmured was very cruel; but it caused the most part to so well bestir themselves, that of two hundred, (except they were drowned) there died not past seven; as for Captain Winne and Mr. Leigh, they were dead ere this want happened, and the rest died not for want of such as preserved the rest; many were billeted amongst the savages, whereby we knew all their passages, fields, and habitations, how to gather and use their fruits as well as themselves; for they knew we had such a commanding power at James Town, they durst not wrong us of a pin.

So well those poor savages used us that were thus billeted, that divers of the soldiers ran away to search Kemps and Tassore our old prisoners. Glad were these savages to have such an opportunity to testify their love unto us; for instead of entertaining them, and such things as they had stolen, with all their great offers and promises they made them how to revenge their injuries upon Captain Smith. Kemps first made himself sport, in shewing his countrymen (by them) how he was used, feeding them with this law, who would not work must not eat, till they were near starved indeed, continually threatening to beat them to death: neither could they get from him, till he and his comforts brought them perforce to our captain, that so well contented him and punished them, as many others that intended also to follow them, were rather contented to labour at home, than adventure to live idly amongst the savages (of whom there was more hope to make better Christians and good subjects, than the one-half of those that counterfeited themselves both). For so afraid were all those kings and the better sort of the people to displease us, that some of the baser sort that we have extremely hurt and punished for their villanies, would hire us we should not tell it to their kings or countrymen, who would also re-punish them, and yet return them to James Town to content the president for a testimony of their loves.

Mr. Sicklemore well returned from Chawwonoke; but found little hope, and less certainty of them were left by Sir Walter Raleigh. The river he saw was not great, the people few, the country most overgrown with pines, where there did grow here and there stragglingly pemminaw, we call silk-grass. But by the river the ground was good, and exceeding fertile.

Mr. Nathaniel Powell and Anas Todkill were also by the Quiyoughquohanocks conducted to the Mangoags to search them there; but nothing could they learn but they were all dead. This honest proper good promise-keeping King, of all the rest did ever best affect us, and though to his false gods he was very zealous, yet he would confess our God as much exceeded his as our guns did his bow and arrows, often sending our president many presents, to pray to his God for rain or his corn would perish, for his gods were angry. Three days journey they conducted them through the woods, into a high country towards the south-west, where they saw here and there a little corn field, by some little spring or small brook, but no river they could see: the people in all respects like the rest, except their language: they live most upon roots, fruits and wild beasts; and trade with them towards the sea and the fatter countries for dried fish and corn, for skins.

All this time to recover the Dutchmen and one Bentley, another fugitive, we employed one William Volday, a Swiss by birth, with pardons and promises to regain them. Little we then suspected this double villain of any villainy, who plainly taught us, in the most trust was the greatest treason; for this wicked hypocrite, by the seeming hate he bore to the lewd conditions of his cursed countrymen, (having this opportunity by his employment to regain them,) conveyed them every thing they desired to effect their projects, to destroy the colony. With much devotion they expected the Spaniards, to whom they intended good service, or any other, that would but carry them from us.

But

But to begin with the first opportunity: they seeing necessity thus enforced us to disperse ourselves, importuned Powhatan to lend them but his forces, and they would not only destroy our hogs, fire our town, and betray our pinnace, but bring to his service and subjection the most of our company. With this plot they had acquainted many discontents, and many were agreed to their devilish practice. But one Thomas Douse, and Thomas Mallard (whose Christian hearts relented at such an unchristian act) voluntarily revealed it to Captain Smith, who caused them to conceal it, persuading Douse and Mallard to proceed in their confederacy: only to bring the irreclaimable Dutchmen and the inconstant savages in such a manner amongst such ambuscadoes as he had prepared, that not many of them should return from our peninsula. But this brute coming to the ears of the impatient multitude, they so importuned the president to cut off those Dutchmen, as amongst many that offered to cut their throats before the face of Powhatan, the first was Lieutenant Percy, and Mr. John Cuderington, two gentlemen of as bold resolute spirits as could possibly be found. But the president had occasion of other employment for them, and gave way to Mr. Wyffin and serjeant Jeffry Abbot, to go and stab them or shoot them. But the Dutchmen made such excuses, accusing Volday, whom they supposed had revealed their project, as Abbot would not, yet Wyffin would, perceiving it but deceit. The King understanding of this their employment, sent presently his messengers to Captain Smith to signify it was not his fault to detain them, nor hinder his men from executing his command: nor did he nor would he maintain them, or any to occasion his displeasure.

But whilst this business was in hand, arrived one Captain Argall, and Mr. Thomas Sedan, sent by Mr. Cornelius to truck with the colony, and fish for sturgeon, with a ship well furnished with wine, and much other good provision. Though it was not sent us, our necessities was such as enforced us to take it. He brought us news of a great supply, and preparation for the Lord La Warre, with letters that much taxed our president for his hard dealing with the savages, and not returning the ships freighted. Notwithstanding, we kept this ship till the fleet arrived. True it is Argall lost his voyage, but we revictualled him, and sent him for England, with a true relation of the causes of our defaultments, and how impossible it was to return that wealth they expected, or observe their instructions to endure the savages' insolence, or do any thing to any purpose, except they would send us men and means that could produce that they so much desired: otherwise all they did was lost, and could not but come to confusion. The villainy of Volday we still dissembled. Adam, upon his pardon, came home; but Samuel still stayed with Powhatan, to hear further of their estates by this supply. Now all their plots Smith so well understood, they were his best advantages to secure us from any treachery could be done by them or the savages: which with facility he could revenge when he would, because all those countries more feared him than Powhatan, and he had such parties with all his bordering neighbours; and many of the rest for love or fear would have done any thing he would have them, upon any commotion, though these fugitives had done all they could to persuade Powhatan King James would kill Smith, for using him and his people so unkindly.

By this you may see for all those crosses, treacheries, and dissensions, how he wrestled and overcame (without bloodshed) all that happened; also what good was done; how few died; what food the country naturally afforded; what small cause there is men should starve, or be murdered by the savages, that have discretion to manage them with courage and industry. The two first years, though by his adventures, he had oft brought the savages to a tractable trade, yet you see how the envious authority ever crossed him, and frustrated his best endeavours. But it wrought in him that experience

rience and estimation amongst the savages, as otherwise it had been impossible he had ever effected that he did. Notwithstanding the many miserable, yet generous and worthy adventures, he had oft and long endured in the wide world, yet in this case he was again to learn his lecture by experience. Which with thus much ado having obtained, it was his ill chance to end, when he had but only learned how to begin. And though he left those unknown difficulties (made easy and familiar) to his unlawful successors, (who, only by living in James Town, presumed to know more than all the world could direct them :) now though they had all his soldiers, with a triple power, and twice triple better means ; by what they have done in his absence, the world may see what they would have done in his presence, had he not prevented their indiscretions : it doth justly prove, what cause he had to send them for England, and that he was neither factious, mutinous, nor dishonest. But they have made it more plain since his return for England ; having his absolute authority freely in their power, with all the advantages and opportunity that his labours had effected. As I am sorry their actions have made it so manifest, so I am unwilling to say what reason doth compel me, but only to make apparent the truth, least I should seem partial, reasonless, and malicious.

CHAP. XII. — *The Arrival of the third Supply.*

TO redress those jars and ill proceedings, the treasurer, council, and company of Virginia, not finding that return and profit they expected ; and them engaged there not having means to subsist of themselves, made means to His Majesty to call in their commission and take a new in their own names, as in their own publication, 1610, you may read at large. Having thus annihilated the old by virtue of a commission made to the Right Honourable Sir Thomas West, Lord de la Warre, to be General of Virginia, Sir Thomas Gates, his lieutenant, Sir George Somers, admiral, Sir Thomas Dale, high marshal, Sir Ferdinando Wainman, general of the horse, and so all other offices to many other worthy gentlemen for their lives, (though not any of them had ever been in Virginia, except Captain Newport, who was also by patent made vice-admiral) ; those noble gentlemen drew in such great sums of money, that they sent Sir Thomas Gates, Sir George Somers, and Captain Newport, with nine ships and five hundred people, who had each of them a commission, who first arrived to call in the old, without the knowledge or consent of them that had endured all those former dangers to beat the path, not any regard had at all of them. All things being ready, because those three captains could not agree for place, it was concluded they should go all in one ship, so all their three commissions were in that ship with them called the Sea-Venture. They set sail from England in May 1609. A small catch perished at sea in a hericano, the admiral with an hundred and fifty men, with the two knights, and their new commissions, their bills of loading, with all manner of directions, and the most part of their provision arrived not. With the other seven ships, as captains, arrived Ratliffe, whose right names (as is said) was Sicklemore, Martin, and Archer, with Captain Wood, Captain Webbe, Captain Moone, Captain King, Captain Davis, and divers gentlemen of good means and great parentage. But the first as they had been troublesome at sea began again to mar all ashore, for though (as is said) they were formerly sent for England, yet now returning again, graced by the titles of captains of the passengers, seeing the admiral wanting, and great probability of her loss, strengthened themselves with those new companies, so exclaiming against Captain Smith, that they mortally hated him ere ever they saw him. Who, understanding by his

his scouts, the arrival of such a fleet, little dreaming of any such supply, supposed them Spaniards. But he quickly so determined and ordered our affairs, as we little feared their arrival, nor the success of our encounter; nor were the savages any way negligent for the most part to aid and assist us with their best power. Had it so been we had been happy, for we would not have trusted them but as our foes, were receiving them as our countrymen and friends, they did what they could to murder our president, to surprise the store, the fort, and our lodgings, to usurp the government, and make us all their servants and slaves till they could consume us and our remembrance; and rather indeed to supplant us than supply us, as Mr. William Box, an honest gentleman in this voyage, thus relateth.

In the tail of a hurricane we were separated from the admiral, which although it was but the remainder of that storm, there is seldom any such in England, or those northern parts of Europe. Some lost their masts, some their sails blown from their yards; the seas so over-raking our ships, much of our provision was spoiled, our fleet separated, and our men sick, and many died, and in this miserable state we arrived at Virginia.

But in this storm,

When rattling thunder ran along the clouds,
Did not the sailors poor, and masters proud,
A terror feel as struck with fear of God:
Did not their trembling joints then dread his rod,
Least for foul deeds and black mouth'd blasphemies,
The rueful time be come that vengeance cries?

To a thousand mischiefs those lewd captains led this lewd company, wherein were many unruly gallants, packed thither by their friends to escape ill destinies, and those would dispose and determine of the government, sometimes to one, the next day to another, to-day the old commission must rule, to-morrow the new, the next day neither, in fine they would rule all or ruin all: yet in charity we must endure them thus to destroy us, or by correcting their follies, have brought the world's censure upon us to be guilty of their bloods. Happy had we been had they never arrived, and we for ever abandoned, and as we were left to our fortunes, for on earth for the number was never more confusion or misery, than their factions occasioned.

The president seeing the desire those braves had to rule, seeing how his authority was so unexpectedly changed, would willingly have left all, and have returned for England. But seeing there was small hope this new commission would arrive, longer he would not suffer those factious spirits to proceed. It would be too tedious, too strange, and almost incredible, should I particularly relate the infinite dangers, plots, and practices, he daily escaped amongst this factious crew, the chief whereof he quickly laid by the heels, till his leisure better served to do them justice, and to take away all occasions of further mischief; Mr. Percie had his request granted to return for England, being very sick; and Mr. West with an hundred and twenty of the best he could choose, he sent to the Falles; Martin with near as many to Nandsamund, with their due proportions of all provisions according to their numbers.

Now the president's year being near expired he made Captain Martin president to follow the order for the election of a president every year, but he knowing his own insufficiency and the companies' untowardness and little regard of him, within three hours after resigned it again to Captain Smith, and at Nandsamund thus proceeded. The people being contributors used him kindly, yet such was his jealous fear, in the midst of their mirth he did surprise this poor naked king with his monuments, houses,

and the isle he inhabited, and there fortified himself, but so apparently distracted with fear, as emboldened the savages to assault him, kill his men, release their king, gather and carry away a thousand bushels of corn, he not once offering to intercept them; but sent to the president, then at the Falls, for thirty good shot, which from James Town immediately was sent him. But he so well employed them they did just nothing, but returned complaining of his tenderness, yet he came away with them to James Town, leaving his company to their fortunes.

Here I cannot omit the courage of George Forrest, that had seventeen arrows sticking in him and one shot through him, yet lived six or seven days, as if he had small hurt, then for want of chirurgery died.

Mr. West having seated his men by the Falls, presently returned to revisit James Town, the president followed him to see that company seated, met him by the way, wondering at his so quick return, and found his company planted so inconsiderately in a place not only subject to the river's inundation, but round environed with many intolerable inconveniences.

For remedy whereof he presently sent to Powhatan to sell him the place called Powhatan, promising to defend him against the Monacans. And these should be his conditions, (with his people) to resign him the fort and houses, and all that country for a proportion of copper; that all stealing offenders should be sent him, there to receive their punishment; that every house as a custom should pay him a bushel of corn for an inch square of copper, and a proportion of pocones, as a yearly tribute to King James for their protection, as a duty; what else they could spare to barter at their best discretion.

But both this excellent place and those good conditions did those furies refuse, contemning both him, his kind care and authority. So much they depended on the Lord-General's new commission, as they regarded none: the worst they could do to shew their spite they did; supposing all the Monacan's country, gold; and none should come there but whom they pleased. I do more than wonder to think how only with five men, he either durst or would adventure as he did, (knowing how greedy they were of his blood) to land amongst them, and commit to imprisonment all the chieftains of those mutinies, till by their multitudes, being an hundred and twenty, they forced him to retire; yet in that interim he surprised one of their boats, wherewith he returned to their ship; where indeed was their provision, which also he took; and well it chanced he found the mariners so tractable and constant, or there had been small possibility he had ever escaped. There were divers other of better reason and experience, that from their first landing, hearing the general good report of his old soldiers, and seeing with their eyes his actions so well managed with discretion, as Captain Wood, Captain Webbe, Captain Moone, Captain Fitz-James, Mr. William Powell, Mr. Patridge, Mr. White, and divers others, when they perceive the malice of Ratliffe and Archer, and their faction, left their companies, and ever rested his faithful friends. But the worst was that the poor savages, that daily brought in their contribution to the president, that disorderly company so tormented those poor souls, by stealing their corn, robbing their gardens, beating them, breaking their houses, and keeping some prisoners that they daily complained to Captain Smith, he had brought them for protectors, worse enemies then the Monacans themselves: which, though till then, for his love they had endured, they desired pardon if hereafter they defended themselves; since he would not correct them, as they had long expected he would. So much they importuned him to punish their misdemeanors, as they offered (if he would lead them) to fight for him against them. But having spent nine days in seeking to reclaim them; shewing them how
much

much they did abuse themselves with these great gilded hopes of the South Sea mines, commodities, or victories, they so madly conceived; then seeing nothing would prevail, he set sail for James Town.

Thus oft we see from small green wounds, and from a little grief,
A greater sore and sickness grows, than will admit relief,
For thus themselves they did beguile, and with the rest play'd thief.

Now no sooner was the ship under sail, but the savages assaulted those hundred and twenty in their fort, finding some straggling abroad in the woods: they slew many, and so affrighted the rest, as their prisoners escaped, and they safely retired, with the swords and cloaks of those they had slain. But ere we had sailed half a league, our ship grounding, gave us once more liberty to summon them to a parley; where we found them all so strangely amazed with this poor silly assault of twelve savages, that they submitted themselves upon any terms to the president's mercy; who presently put by the heels six or seven of the chief offenders: the rest he seated gallantly at Powhatan, in that savage fort, ready built, and prettily fortified with poles and barks of trees, sufficient to have defended them from all the savages in Virginia, dry houses for lodgings, and near two hundred acres of ground ready to be planted, and no place we knew so strong, so pleasant, and delightful in Virginia, for which we called it Non-such. The savages also he presently appeased, re-delivering to either party their former losses. Thus all were friends.

New officers appointed to command, and the president again ready to depart, at that instant arrived Captain West, whose gentle nature (by the persuasions and compassion of those mutinous prisoners, alledging they had only done this for his honour) was so much abused, that to regain their old hopes, new turboils did arise. For they ashore being possessed of all their victuals, munition, and every thing, grew to that height in their former factions, as the president left them to their fortunes; they returned again to the open air at West's Fort, abandoning Non-such, and he to James Town with his best expedition, but this happened him in that journey.

Sleeping in his boat, (for the ship was returned two days before) accidentally, one fired his powder-bag, which tore the flesh from his body and thighs, nine or ten inches square in a most pitiful manner, but to quench the tormenting fire, frying him in his cloaths, he leaped overboard into the deep river, where ere they could recover him he was near drowned. In this state without either surgeon or surgery, he was to go near a hundred miles. Arriving at James Town, causing all things to be prepared for peace or war to obtain provision, whilst those things were providing, Ratliffe, Archer, and the rest of their confederates, being to come to their trials; their guilty consciences, fearing a just reward for their deserts, seeing the president unable to stand, and near bereft of his senses by reason of his torment, they had plotted to have murdered him in his bed. But his heart did fail him that should have given fire to that merciless pistol. So not finding that course to be the best, they joined together to usurp the government, thereby to escape their punishment. The president had notice of their projects, the which to withstand, though his old soldiers importuned him but permit them to take their heads that would resist his command, yet he would not suffer them, but sent for the masters of the ships, and took order with them for his return for England. Seeing there was neither surgeon nor surgery in the fort to cure his hurt, and the ships to depart the next day, his commission to be suppressed he knew not why, himself and soldiers to be rewarded he knew not how, and a new commission granted they knew not to whom, (the which disabled that authority he had, as made them presume so oft to those mutinies

mutinies as they did :) besides so grievous were his wounds, and so cruel his torments (few expecting he could live) nor was he able to follow his business to regain what they had lost, suppress those factions, and range the countries for provision as he intended; and well he knew in those affairs his own actions and presence was as requisite as his directions, which now could not be, he went presently abroad, resolving there to appoint them governors, and to take order for the mutineers, but he could find none, he thought fit for it, would accept it. In the mean time, seeing him gone, they persuaded Mr. Percy to stay, who was then to go for England, and be their president. Within less than an hour was this mutation begun and concluded. For when the company understood Smith would leave them, and saw the rest in arms called presidents and councillors, divers began to fawn on those new commanders, that now bent all their wits to get him resign them his commission: who after much ado and many bitter repulses; that their confusion (which he told them was at their elbows) should not be attributed to him, for leaving the colony without a commission, he was not unwilling they should steal it, but never would he give it to such as they. And thus,

Strange violent forces drew us on unwilling,
Reason persuading 'gainst our loves rebelling;
We saw and knew the better, ah curse accurst,
That notwithstanding we embrace the worst

But had that unhappy blast not happened, he would quickly have qualified the heat of those humors and factions, had the ships but once left them and us to our fortunes, and have made that provision from among the savages, as we neither feared Spaniard, savage, nor famine; nor would have left Virginia, nor our lawful authority, but at as dear a price as we had bought it, and paid for it. What shall I say but thus, we left him, that in all his proceedings, made justice his first guide, and experience his second, even hating baseness, sloth, pride, and indignity, more than any dangers; that never allowed more for himself than his soldiers with him; that upon no danger would send them where he would not lead them himself; that would never see us want, what he either had, or could by any means get us; that would rather want than borrow, or starve than not pay; that loved action more than words, and hated falsehood and covetousness worse than death; whose adventures were our lives, and whose loss our deaths.

Leaving us thus with three ships, seven boats, commodities ready to trade, the harvest newly gathered, ten weeks provision in the store, four hundred ninety and odd persons, twenty-four pieces of ordnance, three hundred muskets, snaphances, and firelocks, shot, powder, and match sufficient, curats, pikes, swords, and morrios, more than men; the savages, their language, and habitations well known to an hundred well-trained and expert soldiers, nets for fishing, tools of all sorts to work, apparel to supply our wants, six mares and a horse, five or six hundred swine, as many hens and chickens, some goats, some sheep, what was brought or bred there remained. But they regarding nothing but from hand to mouth, did consume what we had, took care for nothing, but to perfect some colourable complaints against Captain Smith; for effecting whereof, three weeks longer they stayed the ships, till they could produce them. That time and charge might much better have been spent, but it suited well with the rest of their discretions.

Besides James Town, that was strongly pallisadoed, containing some fifty or sixty houses, he left five or six other several forts and plantations; though they were not so sumptuous as our successors expected, they were better than they provided any for us.

All

All this time we had but one carpenter in the country, and three others that could do little, but desired to be learners, two blacksmiths, two failors, and those we write labourers were for most part footmen, and such as they that were adventurers brought to attend them, or such as they could persuade to go with them, that never did know what a day's work was, except the Dutchmen and Poles, and some dozen other; for all the rest were poor gentlemen, tradesmen, serving-men, libertines, and such like, ten times more fit to spoil a commonwealth, than either begin one, or but help to maintain one: for when neither the fear of God, nor the law, nor shame, nor displeasure of their friends, could rule them here, there is small hope ever to bring one in twenty of them ever to be good there. Notwithstanding, I confess divers amongst them had better minds, and grew much more industrious than was expected; yet ten good workmen would have done more substantial work in a day, than ten of them in a week; therefore men may rather wonder how we could do so much, than use us so badly, because we did no more, but leave those examples to make others beware, and the fruits of all, we know not for whom.

But to see the justice of God upon these Dutchmen; Valdo before spoke of, made a shift to get for England, where persuading the merchants what rich mines he had found, and great service he would do them, was very well rewarded, and returned with the Lord La Warre; but being found a mere impostor, he died most miserably. Adam and Francis, his two consorts, were fled again to Powhatan, to whom they promised, at the arrival of my Lord, what wonders they would do, would he suffer them but to go to him; but the King seeing they would be gone, replied, You, that would have betrayed Captain Smith to me, will certainly betray me to this great Lord for your peace: so caused his men to beat out their brains.

To conclude, the greatest honour that ever belonged to the greatest monarchs, was the enlarging their dominions, and erecting commonwealths. Yet, howsoever any of them have attributed to themselves the conquerors of the world, there is more of the world never heard of them, than ever any of them all had in subjection; for the Medes, Persians, and Assyrians never conquered all Asia, nor the Grecians but part of Europe and Asia: the Romans, indeed, had a great part of both, as well as Africa; but as for all the northern parts of Europe and Asia, the interior southern and western parts of Africa, all America and Terra Incognita, they were all ignorant: nor is our knowledge yet but superficial: that their beginnings, ending, and limitations, were proportioned by the Almighty is most evident; but to consider of what small means many of them have begun is wonderful; for some write that even Rome herself, during the reign of Romulus, exceeded not the number of a thousand houses, and Carthage grew so great a potentate, that at first was but encircled in the thongs of a bulls skin, as to fight with Rome for the empire of the world. Yea, Venice, at this time the admiration of the earth, was at first but a marsh, inhabited by poor fishermen; and likewise Ninevie, Thebes, Babylon, Delus, Troy, Athens, Mycena, and Sparta, grew from small beginnings to be most famous states, though now they retain little more than a naked name. Now this our young commonwealth, in Virginia, as you have read, once consisted but of thirty-eight persons, and in two years increased but to two hundred; yet by this small means, so highly was approved the plantation in Virginia, as how many lords, with worthy knights, and brave gentlemen, pretended to see it, and some did, and now after the expence of fifteen years more, and such massy sums of men and money, they grow dis-animated. If we truly consider our proceedings with the Spaniards, and the rest, we have no reason to despair, for with so small charge, they never had either greater discoveries, with such certain trials of more several commodities, than in this short time hath

hath been returned from Virginia, and by much less means. New England was brought out of obscurity, and afforded freight for near two hundred sail of ships where there is now erected a brave plantation. For the happiness of Summer Isles, they are no less than either, and yet those have had a far less and a more difficult beginning than either Rome, Carthage, or Venice.

Written by RICHARD POTS, clerk of the council, WILLIAM TANKARD,
and G. P.

BOOK IV.

TO make plain the true proceedings of the history for 1609, we must follow the examinations of Dr. Simons, and two learned orations published by the Company; with the relation of the Right Honourable the Lord De la Ware.

What happened in the first Government after the Alteration in the Time of Captain George Piercie, their Governor.

THE day before Captain Smith returned for England with the ships, Captain Davis arrived in a small pinnace, with some sixteen proper men more; to these were added a company from James Town, under the command of Captain John Sickelmore, alias Ratcliffe, to inhabit Point Comfort. Captain Martin and Captain West, having lost their boats and near half their men among the savages, were returned to James Town; for the savages no sooner understood Smith was gone, but they all revolted, and did spoil and murder all they encountered. Now we were all constrained to live only on that Smith had only for his own company, for the rest had consumed their proportions, and now they had twenty presidents, with all their appurtenances: Mr. Piercie, our new president, was so sick he could neither go nor stand. But ere all was consumed, Captain West and Captain Sickelmore, each with a small ship, and thirty or forty men well appointed, fought abroad to trade. Sickelmore, upon the confidence of Powhatan, with about thirty others as careless as himself, were all slain, only Jeffrey Shortridge escaped, and Pokahontas, the King's daughter, saved a boy called Henry Spilman, that lived many years after, by her means, amongst the Patawomekes. Powhatan, still as he found means, cut off their boats, denied them trade, so that Captain West set sail for England. Now we all found the loss of Captain Smith, yea, his greatest maligners could now curse his loss. As for corn, provision, and contribution from the savages, we had nothing but mortal wounds, with clubs and arrows; as for our hogs, hens, goats, sheep, horse, or what lived, our commanders, officers, and savages daily consumed them; some small proportions sometimes we tasted, till all was devoured; then swords, arms, pieces, or any thing, we traded with the savages, whose cruel fingers were so oft imbrued in our bloods, that what by their cruelty, our governor's indiscretion, and the loss of our ships, of five hundred within six months after Captain Smith's departure, there remained not past sixty men, women, and children, most miserable and poor creatures; and those were preserved for the most part by roots, herbs, acorns, walnuts, berries, now and then a little fish: they that had starch in these extremities made no small use of it; yea, even the very skins of our horses; nay, so great was our famine, that a savage we slew and buried, the poorer sort took him up again and eat him, and so did divers one another, boiled and stewed with roots and herbs: and one amongst the rest did kill his wife, powdered her, and had eaten

part of her before it was known, for which he was executed, as he well deserved; now whether she was better roasted, boiled, or carbonadoed, I know not, but of such a dish as powdered wife I never heard of. This was that time, which still to this day we called the starving time; it were too vile to say, and scarce to be believed what we endured: but the occasion was our own, for want of providence, industry, and government, and not the barrenness and defect of the country, as is generally supposed; for till then in three years, for the numbers were landed us, we had never from England provision sufficient for six months, though it seemed by the bills of lading sufficient was sent us, such a glutton is the sea, and such good fellows the mariners, we as little tasted of the great proportion sent us, as they of our want and miseries; yet notwithstanding they ever over-swayed and ruled the business, though we endured all that is said, and chiefly lived on what this good country naturally afforded; yet had we been even in paradise itself with these governors, it would not have been much better with us; yet there was amongst us, who had they had the government as Captain Smith appointed, but that they could not maintain it, would surely have kept us from those extremities of miseries. This in ten days more would have supplanted us all with death.

But God, that would not this country should be unplanted, sent Sir Thomas Gates and Sir George Sommers, with one hundred and fifty people, most happily preserved by the Bermudas to preserve us: strange it is to say, how miraculously they were preserved in a leaking ship, as at large you may read in the ensuing history of those islands.

The Government resigned to Sir Thomas Gates, 1610.

WHEN these two noble knights did see our miseries, being but strangers in that country, and could understand no more of the cause, but by conjecture of our clamours and complaints, of accusing and excusing one another: they embarked us with themselves, with the best means they could, and abandoning James Town, set sail for England, whereby you may see the event of the government of the former commanders left to themselves; although they had lived there many years, as formerly hath been spoken (who hindered now their proceedings, Captain Smith being gone).

At noon they fell to the Isle of Hogs, and the next morning to Mulberry Point, at what time they descried the long-boat of the Lord La Ware, for God would not have it so abandoned. For this honourable Lord, then governor of the country, met them with three ships, exceedingly well furnished with all necessaries fitting, who again returned them to the abandoned James Town.

Out of the observations of WILLIAM SIMMONS, Doctor of Divinity.

The Government devolved to the Lord La Ware.

HIS LORDSHIP arrived the ninth of June, 1610, accompanied with Sir Ferdinando Waynman, Captain Houlcroft, Captain Lawson, and divers other gentlemen of sort; the 10th he came up with his fleet, went on shore, heard a sermon, read his commission, and entered into consultation for the good of the colony, in which secret council we will a little leave them, that we may duly observe the revealed counsel of God. He that shall but turn up his eye, and behold the spangled canopy of heaven, or shall but cast down his eye, and consider the embroidered carpet of the earth, and withal shall mark how

the heavens hear the earth, and the earth the corn and oil, and they relieve the necessities of man, that man will acknowledge God's infinite providence: but he that shall further observe, how God inclineth all casual events to work the necessary help of his saints, must needs adore the Lord's infinite goodness. Never had any people more just cause to cast themselves at the very footstool of God, and to reverence his mercy, than this distressed colony; for if God had not sent Sir Thomas Gates from the Bermudas, within four days they had almost been famished; if God had not directed the heart of that noble knight to save the fort from firing at their shipping, for many were very importunate to have burnt it, they had been destitute of a present harbour and succour; if they had abandoned the fort any longer time, and had not so soon returned, questionless the Indians would have destroyed the Fort, which had been the means of our safeties amongst them, and a terror. If they had set sail sooner, and had launched into the vast ocean, who would have promised they should have encountered the fleet of the Lord La Ware, especially when they made for Newfoundland, as they intended, a course contrary to our navy approaching. If the Lord La Ware had not brought with him a year's provision, what comfort would those poor souls have received to have been relanded to a second destruction? This was the arm of the Lord of Hosts, who would have his people pass the Red Sea and wilderness, and then to possess the land of Canaan. It was divinely spoken of heathen Socrates, "If God for man be careful, why should man be over-distrustful? for he hath so tempered the contrary qualities of the elements,

That neither cold things want heat, nor moist things dry,
Nor sad things spirits, to quicken them thereby,
Yet make they musical content of contrariety,
Which conquer'd, knits them in such links together,
They do produce even all this whatsoever.

The lord-governor, after mature deliberation, delivered some few words to the company, laying just blame upon them for their haughty vanities and sluggish idleness, earnestly entreating them to amend those desperate follies, lest he should be compelled to draw the sword of justice, and to cut off such delinquents, which he had rather draw, to the shedding of his vital blood, to protect them from injuries; heartening them with relation of that store he had brought with him, constituting officers of all conditions, to rule over them, allotting every man his particular place, to watch vigilantly, and work painfully: this oration and direction being received with a general applause, you might shortly behold the idle and resty diseases of a divided multitude, by the unity and authority of this government to be substantially cured. Those that knew not the way to goodness before, but cherished singularity and faction, can now chalk out the path of all respective duty and service: every man endeavoureth to outstrip other in diligence: the French preparing to plant the vines, the English labouring in the woods and grounds; every man knoweth his charge, and dischargeth the same with alacrity. Neither let any man be discouraged, by the relation of their daily labour (as though the sap of their bodies should be spent for other men's profit) the settled times of working, to effect all themselves, or as the adventurer's need desire, required no more pains than from six of the clock in the morning, until ten, and from two in the afternoon till four, at both which times they are provided of spiritual and corporal relief. First, they enter into the church, and make their prayers unto God, next they return to their houses and receive their proportion of food. Nor should it be conceived that this business excludeth gentlemen, whose breeding never knew what a day's labour meant, for though they cannot dig, use the spade, nor practise the axe, yet

yet may the staid spirits of any condition, find how to employ the force of knowledge, the exercise of council, the operation and power of their best breeding and qualities. The houses which are built, are as warm and defensive against wind and weather, as if they were tiled and slated, being covered above with strong boards, and some matted round with Indian mats. Our forces are now such as are able to tame the fury and treachery of the savages: our forts assure the inhabitants, and frustrate all assailants. And to leave no discouragement in the heart of any, who personally shall enter into this great action, I will communicate a double comfort; first, Sir George Sommers, that worthy admiral, hath undertaken a dangerous adventure for the good of the colony.

Upon the 15th of June, accompanied with Captain Samuel Argall, he returned in two pinnaces unto the Bermudas, promising (if by any means God will open a way to that island of rocks) that he would soon return with six months provision of flesh. With much cross weather at last he there safely arrived, but Captain Argall was forced back again to James Town, whom the Lord De la Ware not long after sent to the river of Patawomeke, to trade for corn; where finding an English boy, one Henry Spilman, a young gentleman well descended, by those people preserved from the fury of Powhatan, by his acquaintance had such good usage of those kind savages, that they freighted his ship with corn, wherewith he returned to James Town.

The other comfort is, that the Lord la Ware hath built two new forts, the one called Fort Henry, the other Fort Charles, in honour of our most noble Prince, and his hopeful brother, upon a pleasant plain, and near a little rivulet they call Southampton river; they stand in a wholesome air, having plenty of springs of sweet water, they command a great circuit of ground, containing wood, pasture and marsh, with apt places for vines, corn and gardens; in which forts it is resolved, that all those that come out of England, shall be at their first landing quartered, that the wearisomeness of the sea may be refreshed in this pleasing part of the country, and Sir Thomas Gates he sent for England. But to correct some injuries of the Paspahegs, he sent Captain Piercie, Mr. Stacy, and fifty or threescore shot, where the savages flying, they burnt their houses, took the Queen and her children prisoners, whom not long after they slew.

The fertility of the soil, the temperature of the climate, the form of government, the condition of our people, their daily invoking of the name of God being thus expressed, why should the success, by the rules of mortal judgment, be disparaged? why should not the rich harvest of our hopes be seasonably expected? I dare say, that the resolution of Cæsar in France, the designs of Alexander, the discoveries of Hernando Cortes in the West, and of Emanuel King of Portugal in the East, were not encouraged upon so firm grounds of state and possibility.

But his lordship being at the Falls, the savages assaulted his troops, and slew three or four of his men. Not long after, his honour growing very sick, he returned for England the 28th of March; in the ship were about five and fifty men, but ere we arrived at Fyall, forty of us were near sick to death, of the scurvy, calenture, and other diseases: the governor, being an Englishman, kindly used us, but small relief we could get, but oranges, of which we had plenty, whereby within eight days we recovered, and all were well and strong by that they came into England.

Written by WILLIAM BOX.

The counsel of Virginia finding the smallness of that return which they hoped should have defrayed the charge of a new supply, entered into a deep consultation, whether it were fit to enter into a new contribution, or in time to send for them home, and give

over the action, and therefore they adjured Sir Thomas Gates to deal plainly with them, who with a solemn and a sacred oath replied, "That all things before reported were true, and that all men know that we stand at the devotion of politic princes and states, who for their proper utility devise all courses to grind our merchants, and by all pretences to confiscate their goods, and to draw from us all manner of gain by their inquisitive intentions, when in Virginia, a few years labour, by planting and husbandry, will furnish all our defects with honour and security."

Out of a declaration published by the council, 1610.

The Government left again to Captain George Piercie, and the return of the Lord La Ware, with his relation to the Council.

MY LORDS, now by accident returned from my charge at Virginia, contrary either to my own desire, or other men's expectations, who spare not to censure me, in point of duty, and to discourse and question the reason, though they apprehend not the true cause of my return, I am forced out of a willingness to satisfy every man, to deliver unto your lordships and the rest of this assembly, in what state I have lived ever since my arrival to the colony, what hath been the just cause of my sudden departure, and on what terms I have left the same, the rather because I perceive, that since my coming into England, such a coldness and irresolution is bred in many of the adventurers, that some of them seek to withdraw their payments, by which the action must be supported, making this my return colour of their needless backwardness and unjust protraction: which that you may the better understand, I was welcomed to James Town by a violent ague; being cured of it, within three weeks after I began to be distempered with other grievous sickness which successively and severally assailed me, for besides a relapse into the former disease, which with much more violence held me more than a month, and brought me to greater weakness; the flux surprized me, and kept me many days, then the cramp assaulted my weak body with strong pains, and after, the gout; all those drew me to that weakness, being unable to stir, brought upon me the scurvy, which though in others it be a sickness of slothfulness, yet was it in me an effect of weakness, which never left me, till I was ready to leave the world.

In these extremities I resolved to consult with my friends, who finding nature spent in me, and my body almost consumed, my pains likewise daily increasing, gave me advice to prefer a hopeful recovery, before an assured ruin, which must necessarily have ensued, had I lived but twenty days longer in Virginia, wanting at that instant both food and physic, fit to remedy such extraordinary diseases (wherefore I shipped myself with Doctor Bohun and Captain Argall, for Mevis, in the West Indies, but being crossed with southerly winds, I was forced to shape my course for the Western Isles, where I found help for my health, and my sickness assuaged, by the means of fresh diet, especially oranges and lemons, an undoubted remedy for that disease: then I intended to have returned back again to Virginia, but I was advised not to hazard myself, before I had perfectly recovered my strength: so I came for England, in which accident, I doubt not but men of judgment will imagine, there would more prejudice have happened by my death there, than I hope can do by my return.

For the colony I left it to the charge of Captain George Piercie, a gentleman of honour and resolution, until the coming of Sir Thomas Dale, whose commission was likewise to be determined upon the arrival of Sir Thomas Gates, according to the order your Lordships appointed: the number I left were about two hundred, the most in health, and provided of at least ten months victuals, and the country people tractable

able and friendly. What other defects they had, I found by Sir Thomas Gates at the Cowes; his fleet was sufficiently furnished with supplies, but when it shall please God that Sir Thomas Dale and Sir Thomas Gates shall arrive in Virginia with the extraordinary supply of one hundred kine, and two hundred swine, besides store of other provision, for the maintenance of the colony, there will appear that success in the action, as shall give no man cause of distrust, that hath already adventured, but encourage every good mind to further so good a work, as will redound both to the glory of God, to the credit of our nation, and the comfort of all those that have been instruments in the furthering of it."

Out of the Lord La Ware's discourse, published by authority, 1611.

The Government surrendered to Sir Thomas Dale, who arrived in Virginia the 10th of May 1611. Out of Mr. Hamor's Book.

BEFORE the Lord La Ware arrived in England, the council and company had dispatched away Sir Thomas Dale with three ships, men and cattle, and all other provisions necessary for a year; all which arrived well the 10th of May 1611, where he found them growing again to their former state of penury, being so improvident as not to put corn in the ground for their bread, but trusted to the store, then furnished but with three months provision; his first care therefore was to employ all hands about setting of corn, at the two forts at Kecoughtan, Henry and Charles, whereby the season then not fully past, though about the end of May, we had an indifferent crop of good corn.

This business taken order for, and the care and trust of it committed to his under-officers, to James Town he hastened, where most of the company were at their daily and usual works, bowling in the streets; these he employed about necessary works, as felling of timber, repairing their houses ready to fall on their heads, and providing pales, posts and rails, to impale his proposed new town, which by reason of his ignorance, being but newly arrived, he had not resolved where to seat; therefore to better his knowledge, with one hundred men he spent some time in viewing the river of Naufamund, in despite of the Indians then our enemies; then our own river to the Falls, where upon a high land, environed with the main river, some twelve miles from the Falls, by Arfahattock, he resolved to plant his new town.

It was no small trouble to reduce his people so timely to good order, being of so ill a condition, as may well witness his security and strict imprinted book of articles, then needful with all extremity to be executed; now much mitigated: so as if his laws had not been so strictly executed, I see not how the utter subversion of the colony should have been prevented, witness Webbe's and Price's design the first year, since that of Abbot's, and others, more dangerous than the former. Here I entreat your patience for an apology, though not a pardon. This Jeffrey Abbots, however this author censures him, and the governor executes him, I know he had long served both in Ireland and Netherlands; here he was a serjeant of my company, and I never saw in Virginia a more sufficient soldier, less turbulent, a better wit, more hardy or industrious, nor any more forward to cut off them that sought to abandon the country, or wrong the colony; how ungratefully those deserts might be rewarded, envied, or neglected, or his far inferiors preferred to over-top him, I know not, but such occasions might move a faint, much more a man, to an unadvised passionate impatience; but however, it seems he hath been punished for his offences, that was never rewarded for his deserts. And even this summer Cole and Kitchens plot with three more, bending their

shore, and she to James Town. A messenger forthwith was sent to her father, that his daughter Pocahontas he loved so dearly, he must ransom with our men, swords, pieces, tools, &c. he treacherously had stolen.

This unwelcome news much troubled Powhatan, because he loved both his daughter and our commodities well, yet it was three months after ere he returned us any answer: then by the persuasion of the council, he returned seven of our men, with each of them an unserviceable musket, and sent us word that when we would deliver his daughter, he would make us satisfaction for all injuries done us, and give us five hundred bushels of corn, and for ever be friends with us. That he sent we received in part of payment, and returned him this answer, that his daughter should be well used, but we could not believe the rest of our arms were either lost or stolen from him, and therefore till he sent them we would keep his daughter.

This answer it seemed much displeased him, for we heard no more from him a long time after, when with Captain Argall's ship, and some other vessels belonging to the colony, Sir Thomas Dale, with a hundred and fifty men well appointed, went up into his own river, to his chief habitation with his daughter; with many scornful bravadoes they affronted us, proudly demanding why we came thither; our reply was, we had brought his daughter, and to receive the ransom for her that was promised or to have it perforce. They nothing dismayed thereat, told us we were welcome if we came to fight, for they were provided for us, but advised us, if we loved our lives to retire, else they would use us as they had done Captain Ratliffe: we told them we would presently have a better answer, but we were no sooner within shot of the shore than they let fly their arrows among us in the ship.

Being thus justly provoked, we presently manned our boats, went on shore, burned all their houses, and spoiled all they had we could find, and so the next day proceeded higher up the river, where they demanded why we burnt their houses, and we why they shot at us; they replied, it was some straggling savage, with many other excuses, they intended no hurt, but were our friends; we told them we came not to hurt them, but visit them as friends also. Upon this we concluded a peace, and forthwith they dispatched messengers to Powhatan, whose answer, they told us, we must expect four-and-twenty hours ere the messengers could return: then they told us our men were run away for fear we would hang them, yet Powhatan's men were run after them; as for our swords and pieces, they should be brought us the next day, which was only but to delay time, for the next day they came not. Then we went higher to a house of Powhatan's, called Matchot, where we saw about four hundred men well appointed; here they dared us to come on shore, which we did; no shew of fear they made at all, nor offered to resist our landing, but walking boldly up and down amongst us, demanded to confer with our captain, of his coming in that manner, and to have truce till they could but once more send to their king to know his pleasure, which if it were not agreeable to their expectation, then they would fight with us, and defend their own as they could, which was but only to defer the time to carry away their provision; yet we promised them truce till the next day at noon, and then if they would fight with us, they should know when we would begin by our drums and trumpets.

Upon this promise, two of Powhatan's sons came unto us to see their sister, at whose sight, seeing her well, though they heard to the contrary, they much rejoiced, promising they would persuade her father to redeem her, and for ever be friends with us. And upon this, the two brethren went on board with us, and we sent Mr. John Rolfe and Mr. Sparkes to Powhatan, to acquaint him with the business; kindly they were entertained, but not admitted the presence of Powhatan, but they spoke with Opechauhcanough,

canough, his brother and fucceffor ; he promised to do the best he could to Powhatan, all might be well. So it being April, and time to prepare our ground, and fet our corn, we returned to James Town, promifing the forbearance of their performing their promise till the next harvest.

Long before this, Mr. John Rolfe, an honest gentleman, and of good behaviour, had been in love with Pocahontas, and she with him, which thing at that instant I made known to Sir Thomas Dale, by a letter from him, wherein he intreated his advice, and she acquainted her brother with it, which resolution Sir Thomas Dale well approved ; the bruit of this marriage came soon to the knowledge of Powhatan, a thing acceptable to him, as appeared by his sudden consent ; for within ten days, he sent Opachisco, an old uncle of hers, and two of his sons, to see the manner of the marriage, and to do in that behalf what they were requested, for the confirmation thereof, as his deputy ; which was accordingly done about the first of April ; and ever since we have had friendly trade and commerce, as well with Powhatan himself as all his subjects.

Besides this, by the means of Powhatan, we became in league with our next neighbours, the Chicahamanias, a lusty and a daring people, free of themselves. These people, so soon as they heard of our peace with Powhatan, sent two messengers with presents to Sir Thomas Dale, and offered them his service, excusing all former injuries, hereafter they would ever be King James's subjects, and relinquish the name of Chickahamania, to be called Tassautesfus, as they call us, and Sir Thomas Dale their governor, as the King's deputy ; only they desired to be governed by their own laws, which is eight of their elders as his substitutes. This offer he kindly accepted, and appointed the day he would come to visit them.

When the appointed day came, Sir Thomas Dale and Captain Argall, with fifty men, well appointed, went to Chickahamania, where we found the people expecting our coming ; they used us kindly, and the next morning sat in council, to conclude their peace upon these conditions :

First, they should for ever be called Englishmen, and be true subjects to King James and his deputies.

Secondly, neither to kill nor detain any of our men, nor cattle, but bring them home.

Thirdly, to be always ready to furnish us with three hundred men, against the Spaniards, or any.

Fourthly, they shall not enter our towns, but send word they are new Englishmen.

Fifthly, that every fighting man, at the beginning of harvest, shall bring to our store two bushels of corn, for tribute, for which they shall receive so many hatchets.

Lastly, the eight chief men should see all this performed, or receive the punishment themselves ; for their diligence they should have a red coat, a copper chain, and King James's picture, and be accounted his noblemen.

All this they concluded with a general assent, and a great shout to confirm it ; then one of the old men began an oration, bending his speech first to the old men, then to the young, and then to the women and children, to make them understand how strictly they were to observe these conditions, and we would defend them from the fury of Powhatan, or any enemy whatsoever, and furnish them with copper, beads, and hatchets ; but all this was rather for fear Powhatan and we, being so linked together, would bring them again to his subjection ; the which to prevent, they did rather choose to be protected by us, than tormented by him, whom they held a tyrant. And thus we returned again to James Town.

When our people were fed out of the common store, and laboured jointly together, glad was he could slip from his labour, or slumber over his task he cared not how, nay,

course to Ocanahowan, five days journey from us, where they report are Spaniards inhabiting. These were cut off by the savages, hired by us to hunt them home to receive their deserts: so as Sir Thomas Dale hath not been so tyrannous nor severe by the half, as there was occasion and just cause for it, and though the manner was not usual, we were rather to have regard to those, whom we would have terrified and made fearful to commit the like offences, than to the offenders justly condemned, for amongst them so hardened in evil, the fear of a cruel, painful, and unusual death more restrains them, than death itself. Thus much I have proceeded of his endeavours, until the coming of Sir Thomas Gates, in preparing himself to proceed as he intended.

Now in England again to second this noble knight, the council and company with all possible expedition prepared for Sir Thomas Gates six tall ships, with three hundred men, and one hundred kine and other cattle, with ammunition and all other manner of provision that could be thought needful; and about the 1st or 2nd of August 1611, arrived safely at James Town.

The Government returned again to Sir Thomas Gates, 1611.

THESE worthy knights being met, after their welcome salutations, Sir Thomas Dale acquainted him what he had done, and what he intended, which design Sir Thomas Gates well approving, furnished him with three hundred and fifty men, such as himself made choice of. In the beginning of September 1611, he set sail, and arrived where he intended to build his new town: within ten or twelve days he had environed it with a pale, and in honour of our noble Prince Henry, called it Henrico. The next work he did, was building at each corner of the town, a high commanding watch-house, a church, and store-houses; which finished, he began to think upon convenient houses for himself and men, which, with all possible speed he could, he effected, to the great content of his company, and all the colony.

This town is situated upon a neck of a plain rising land, three parts environed with the main river, the neck of land well impaled, makes it like an isle; it hath three streets of well framed houses, a handsome church, and the foundation of a better laid, to be built of brick, besides store-houses, watch-houses, and such like: upon the verge of the river there are five houses, wherein live the honefter sort of people, (as farmers in England) and they keep continual centinel for the town's security. About two miles from the town, into the main, is another pale, near two miles in length, from river to river, guarded with several commanders, with a good quantity of corn-ground impaled sufficiently secured to maintain more than I suppose will come this three years.

On the other side of the river, for the security of the town, is intended to be impaled for the security of our hogs, about two miles and a half, by the name of Hope in Faith, and Coxendale, secured by five of our manner of forts, which are but palisadoes, called Charity Fort, Mount Malado, a guest house for sick people, a high seat and wholesome air, Elizabeth Fort, and Fort Patience: and here hath Mr. Whitaker chosen his parsonage, impaled a fair framed parsonage, and one hundred acres called Rocke-hall, but these are not half finished.

About Christmas following in this same year 1611, in regard of the injury done us by them of Apamatuck, Sir Thomas Dale, without the loss of any, except some few savages, took it and their corn, being but five miles by land from Henrico, and considering how commodious it might be for us, resolved to possess and plant it, and at the instant called it the New Bermudas, whereunto he hath laid out and annexed to

the belonging freedom and corporation for ever, many miles of champaign and woodland ground in several hundreds, as the upper and nether hundreds, Rochdale hundred, West Sherly hundred, and Dig's hundred. In the nether hundred he first began to plant, for there is the most corn ground, and with a pale of two miles, cut over from river to river, whereby we have secured eight English miles in compass; upon which circuit, within half a mile of each other, are many fair houses already built, besides particular men's houses near to the number of fifty. Rochdale, by a cross pale well nigh four miles long, is also planted with houses along the pale, in which hundred our hogs and cattle have twenty miles circuit to graze in securely. The building of the city is referred till our harvest be in, which he intends to make a retreat against any foreign enemy.

About fifty miles from these is James Town, upon a fertile peninsula, which although formerly scanded for an unhealthful air, we find it as healthful as any other part of the country; it hath two rows of houses of framed timber, and some of them two stories, and a garret higher, three large store-houses joined together in length, and he hath newly strongly impaled the town. This isle, and much ground about it, is much inhabited: to Kecoughtan we accounted it forty miles, where they live well with half that allowance the rest have from the store, because of the extraordinary quantity of fish, fowl, and deer, as you may read at large in the discoveries of Captain Smith. And thus I have truly related unto you the present estate of that small part of Virginia we frequent and possess.

Since there was a ship freighted with provision and forty men; and another since then with the like number and provision, to stay twelve months in the country with Captain Argall, which was sent not long after. After he had recreated and refreshed his company, he was sent to the river Patowomeke to trade for corn, the savages about us having small quarter, but friends and foes as they found advantage and opportunity: but to conclude our peace, thus it happened, Captain Argall having entered into a great acquaintance with Iapazaws, an old friend of Captain Smith's, and so to all our nation, ever since he discovered the country: hard by him there was Pocahontas, whom Captain Smith's relations entitled the nonpareil of Virginia, and though she had been many times a preserver of him and the whole colony, yet till this accident she was never seen at James Town since his departure, being at Patowomeke, as it seems, thinking herself unknown, was easily by her friend Iapazaws, persuaded to go abroad with him and his wife to see the ship, for Captain Argall had promised him a copper kettle to bring her but to him, promising no way to hurt her, but keep her till they could conclude a peace with her father; the savage for this copper kettle would have done any thing it seemed by the relation, for though she had seen and been in many ships, yet he caused his wife to feign how desirous she was to see one, and that he offered to beat her for her importunity till she wept. But at last he told her if Pocahontas would go with her, he was content: and thus they betrayed the poor innocent Pocahontas aboard, where they were all kindly feasted in the cabin. Iapazaws treading often on the captain's foot, to remember he had done his part, the captain when he saw his time, persuaded Pocahontas to the gun-room, feigning to have some conference with Iapazaws, which was only that she should not perceive he was any way guilty of her captivity: so sending for her again, he told her before her friends she must go with him, and compound peace betwixt her country and us, before she ever should see Powhatan, whereat the old Jew and his wife began to howl and cry as fast as Pocahontas, that upon the captain's fair persuasions, by degrees pacifying herself, and Iapazaws and his wife with the kettle and other toys, went merrily on shore,

shore, and she to James Town. A messenger forthwith was sent to her father, that his daughter Pocahontas he loved so dearly, he must ransom with our men, swords, pieces, tools, &c. he treacherously had stolen.

This unwelcome news much troubled Powhatan, because he loved both his daughter and our commodities well, yet it was three months after ere he returned us any answer: then by the persuasion of the council, he returned seven of our men, with each of them an unserviceable musket, and sent us word that when we would deliver his daughter, he would make us satisfaction for all injuries done us, and give us five hundred bushels of corn, and for ever be friends with us. That he sent we received in part of payment, and returned him this answer, that his daughter should be well used, but we could not believe the rest of our arms were either lost or stolen from him, and therefore till he sent them we would keep his daughter.

This answer it seemed much displeased him, for we heard no more from him a long time after, when with Captain Argall's ship, and some other vessels belonging to the colony, Sir Thomas Dale, with a hundred and fifty men well appointed, went up into his own river, to his chief habitation with his daughter; with many scornful bravadoes they affronted us, proudly demanding why we came thither; our reply was, we had brought his daughter, and to receive the ransom for her that was promised or to have it perforce. They nothing dismayed thereat, told us we were welcome if we came to fight, for they were provided for us, but advised us, if we loved our lives to retire, else they would use us as they had done Captain Ratliffe: we told them we would presently have a better answer, but we were no sooner within shot of the shore than they let fly their arrows among us in the ship.

Being thus justly provoked, we presently manned our boats, went on shore, burned all their houses, and spoiled all they had we could find, and so the next day proceeded higher up the river, where they demanded why we burnt their houses, and we why they shot at us; they replied, it was some straggling savage, with many other excuses, they intended no hurt, but were our friends; we told them we came not to hurt them, but visit them as friends also. Upon this we concluded a peace, and forthwith they dispatched messengers to Powhatan, whose answer, they told us, we must expect four-and-twenty hours ere the messengers could return: then they told us our men were run away for fear we would hang them, yet Powhatan's men were run after them; as for our swords and pieces, they should be brought us the next day, which was only but to delay time, for the next day they came not. Then we went higher to a house of Powhatan's, called Matchot, where we saw about four hundred men well appointed; here they dared us to come on shore, which we did; no shew of fear they made at all, nor offered to resist our landing, but walking boldly up and down amongst us, demanded to confer with our captain, of his coming in that manner, and to have truce till they could but once more send to their king to know his pleasure, which if it were not agreeable to their expectation, then they would fight with us, and defend their own as they could, which was but only to defer the time to carry away their provision; yet we promised them truce till the next day at noon, and then if they would fight with us, they should know when we would begin by our drums and trumpets.

Upon this promise, two of Powhatan's sons came unto us to see their sister, at whose sight, seeing her well, though they heard to the contrary, they much rejoiced, promising they would persuade her father to redeem her, and for ever be friends with us. And upon this, the two brethren went on board with us, and we sent Mr. John Rolfe and Mr. Sparkes to Powhatan, to acquaint him with the business; kindly they were entertained, but not admitted the presence of Powhatan, but they spoke with Opechauhcanough,

enough, his brother and successor; he promised to do the best he could to Powhatan, all might be well. So it being April, and time to prepare our ground, and set our corn, we returned to James Town, promising the forbearance of their performing their promise till the next harvest.

Long before this, Mr. John Rolfe, an honest gentleman, and of good behaviour, had been in love with Pocahontas, and she with him, which thing at that instant I made known to Sir Thomas Dale, by a letter from him, wherein he intreated his advice, and she acquainted her brother with it, which resolution Sir Thomas Dale well approved; the bruit of this marriage came soon to the knowledge of Powhatan, a thing acceptable to him, as appeared by his sudden consent; for within ten days, he sent Opachisco, an old uncle of hers, and two of his sons, to see the manner of the marriage, and to do in that behalf what they were requested, for the confirmation thereof, as his deputy; which was accordingly done about the first of April; and ever since we have had friendly trade and commerce, as well with Powhatan himself as all his subjects.

Besides this, by the means of Powhatan, we became in league with our next neighbours, the Chickahamania, a lusty and a daring people, free of themselves. These people, so soon as they heard of our peace with Powhatan, sent two messengers with presents to Sir Thomas Dale, and offered them his service, excusing all former injuries, hereafter they would ever be King James's subjects, and relinquish the name of Chickahamania, to be called Tassautesus, as they call us, and Sir Thomas Dale their governor, as the King's deputy; only they desired to be governed by their own laws, which is eight of their elders as his substitutes. This offer he kindly accepted, and appointed the day he would come to visit them.

When the appointed day came, Sir Thomas Dale and Captain Argall, with fifty men, well appointed, went to Chickahamania, where we found the people expecting our coming; they used us kindly, and the next morning sat in council, to conclude their peace upon these conditions:

First, they should for ever be called Englishmen, and be true subjects to King James and his deputies.

Secondly, neither to kill nor detain any of our men, nor cattle, but bring them home.

Thirdly, to be always ready to furnish us with three hundred men, against the Spaniards, or any.

Fourthly, they shall not enter our towns, but send word they are new Englishmen.

Fifthly, that every fighting man, at the beginning of harvest, shall bring to our store two bushels of corn, for tribute, for which they shall receive so many hatchets.

Lastly, the eight chief men should see all this performed, or receive the punishment themselves; for their diligence they should have a red coat, a copper chain, and King James's picture, and be accounted his noblemen.

All this they concluded with a general assent, and a great shout to confirm it; then one of the old men began an oration, bending his speech first to the old men, then to the young, and then to the women and children, to make them understand how strictly they were to observe these conditions, and we would defend them from the fury of Powhatan, or any enemy whatsoever, and furnish them with copper, beads, and hatchets; but all this was rather for fear Powhatan and we, being so linked together, would bring them again to his subjection; the which to prevent, they did rather choose to be protected by us, than tormented by him, whom they held a tyrant. And thus we returned again to James Town.

When our people were fed out of the common store, and laboured jointly together, glad was he could slip from his labour, or slumber over his task he cared not how, nay,

the most honest amongst them would hardly take so much true pains in a week, as now for themselves they will do in a day; neither cared they for the increase, presuming that howsoever the harvest prospered, the general store must maintain them, so that we reaped not so much corn from the labours of thirty, as now three or four do provide for themselves. To prevent which, Sir Thomas Dale hath allotted every man three acres of clear ground, in the nature of farms, except the Bermudas, who are exempted, but for one month's service in the year, which must neither be in seed-time nor harvest; for which doing, no other duty they pay yearly to the store, but two barrels and a half of corn (from all those farmers, whereof the first was William Spence, an honest, valiant, and an industrious man, and hath continued from 1607 to this present,) from those is expected such a contribution to the store, as we shall neither want for ourselves, nor to entertain our supplies; for the rest, they are to work eleven months for the store, and hath one month only allowed them to get provision to keep them for twelve, except two bushels of corn they have out of the store; if those can live so, why should any fear starving; and it were much better to deny them passage, that would not ere they come, be content to engage themselves to those conditions: for only from the slothful and idle drones, and none else, hath sprung the manifold imputations Virginia innocently hath undergone; and therefore I would deter such from coming here, that cannot well brook labour, except they will undergo much punishment and penury, if they escape the scurvy; but for the industrious, there is a reward sufficient; and if any think there is nothing but bread, I refer you to his relations that discovered the country first.

The Government left to Sir Thomas Dale, upon Sir Thomas Gates's Return for England.

SIR Thomas Dale understanding there was a plantation of Frenchmen in the north part of Virginia, about the degrees of 45, sent Captain Argall to Port Royal and Santa Crux, where finding the Frenchmen abroad, dispersed in the woods, surprised their ship and pinnace, which was but newly come from France, wherein was much good apparel, and other provision, which he brought to James Town, but the men escaped, and lived among the savages of those countries.

It pleased Sir Thomas Dale, before my return to England, because I would be able to speak somewhat of my own knowledge, to give me leave to visit Powhatan and his court; being provided, I had Thomas Savage with me for my interpreter; with him, and two savages for guides, I went from the Bermuda in the morning, and came to Matchet the next night, where the King lay upon the river of Pamaunke; his entertainment was strange to me; the boy he knew well, and told him, "My child, I gave you leave, being my boy, to go see your friends, and these four years I have not seen you, nor heard of my own man Namoutack, I sent to England, though many ships since have been returned thence." Having done with him, he began with me, and demanded for the chain of pearl he sent his brother Sir Thomas Dale, at his first arrival, which was a token betwixt them, whenever he should send a messenger from himself to him, he should wear that chain about his neck, since the peace was concluded, otherwise he was to bind him, and send him home.

It is true, Sir Thomas Dale had sent him such word, and gave his page order to give it me, but he forgot it, and till this present I never heard of it; yet I replied I did know there was such an order, but that was when upon a sudden he should have occasion to find an Englishman without an Indian guide; but if his own people should conduct his messenger, as two of his did me, who knew my message, it was sufficient; with

which answer he was contented, and so conducted us to his house, where was a guard of two hundred bow-men, that always attend his person. The first thing he did, he offered me a pipe of tobacco, then asked me how his brother Sir Thomas Dale did, and his daughter, and unknown son, and how they lived, loved, and liked. I told him his brother was well, and his daughter so contented, she would not live again with him; whereat he laughed, and demanded the cause of my coming. I told him my message was private, and I was to deliver it only to himself and Papaschicher, one of my guides that was acquainted with it; instantly he commanded all out of the house, but only his two Queens, that always sit by him; and bade me speak on.

I told him, by my interpreter, Sir Thomas Dale hath sent you two pieces of copper, five strings of white and blue beads, five wooden combs, ten fish-hooks, a pair of knives, and that when you would send for it, he would give you a grind stone. All this pleased him: but then I told him his brother Dale, hearing of the fame of his youngest daughter, desiring in any case he would send her by me unto him, in testimony of his love, as well for that he intended to marry her, as the desire her sister had to see her, because being now one people, and he desirous for ever to dwell in his country, he conceived there could not be a truer assurance of peace and friendship, than in such a natural band of an united union.

I needed not entreat his answer by his oft interrupting me in my speech; and presently with much gravity he thus replied:

"I gladly accept your salute of love and peace, which while I live, I shall exactly keep; his pledges thereof I receive with no less thanks, although they are not so ample as formerly he had received: but for my daughter, I have sold her within this few days to a great Werowance, for two bushels of rawrenoke, three days journey from me." I replied, I knew his greatness in restoring the rawrenoke; might call her again to gratify his brother, and the rather, because she was but twelve years old; assuring him, besides the band of peace, he should have for her three times the worth of the rawrenoke in beads, copper, hatchets, &c. His answer was, he loved his daughter as his life; and though he had many children, he delighted in none so much as she, whom if he should not often behold, he could not possibly live, which she living with us he could not do. Having resolved upon no terms to put himself into our hands, or come amongst us, therefore desired me to urge him no further, but return his brother this answer: that, "I desire no firmer assurance of his friendship than the promise he hath made: from me he hath a pledge, one of my daughters, which so long as she lives shall be sufficient, when she dies, he shall have another: I hold it not a brotherly part to desire to bereave me of my two children at once. Farther, tell him, though he had no pledge at all, he need not distrust any injury from me or my people; there have been too many of his men and mine slain, and by my occasion there shall never be more, (I, which have power to perform it, have said it) although I should have just cause, for I am now old, and would gladly end my days in peace: if you offer me injury, my country is large enough to go from you: thus much I hope will satisfy my brother. Now because you are weary, and I sleepy, we will thus end." So commanding us victuals and lodging, we rested that night; and the next morning he came to visit us, and kindly conducted us to the best cheer he had. WILLIAM PARKER.

While I here remained, by chance came an Englishman, whom there had been surprised three years ago at Fort Henry, grown so like, both in complexion and habit like a savage, I knew him not, but by his tongue: he desired me to procure his liberty, which I intended, and so far urged Powhatan, that he grew discontented, and told me, you have one of my daughters, and I am content; but you cannot see one of your men

with me, but you must have him away, or break friendship; if you must needs have him, you shall go home without guides, and if any evil befall you, thank yourselves: I told him I would, but if I returned not well, he must expect a revenge; and his brother might have just cause to suspect him. So in passion he left me till supper, and then gave me such as he had with a cheerful countenance: about midnight he awaked us, and promised in the morning my return with Parker: but I must remember his brother to send him ten great pieces of copper, a shaving-knife, a frow, a grind stone, a net, fish-hooks, and such toys; which lest I should forget, he caused me write in a table-book he had; however he got it, it was a fair one; I desired he would give it me; he told me no, it did him much good in shewing to strangers; yet in the morning when we departed, having furnished us well with provision, he gave each of us a buck's skin as well dressed as could be, and sent two more to his son and daughter: and so we returned to James Town.

Written by Mr. RALPH HAMOR and JOHN ROLPH.

I have read the substance of this relation in a letter written by Sir Thomas Dale, another by Mr. Whitaker, and a third by Mr. John Rolfe, how careful they were to instruct her in christianity, and how capable and desirous she was thereof; after she had been some time thus tutored, she never had desire to go to her father, nor could well endure the society of her own nation; the true affection she constantly bore her husband was much; and the strange apparitions and violent passions he endured for her love, as he deeply protested, was wonderful; and she openly renounced her country's idolatry, confessed the faith of Christ, and was baptized, but either the coldness of the adventurers, or the bad usage of that was collected, or both, caused this worthy knight to write thus: "Oh why should so many princes and noblemen engage themselves, and thereby intermeddling herein, have caused a number of souls transport themselves, and be transported hither? Why should they, I say, relinquish this so glorious an action: for if their ends be to build God a church, they ought to persevere; if otherwise, yet their honour engageth them to be constant; howsoever they stand affected, here is enough to content them. These are the things have animated me to stay a little season from them, I am bound in conscience to return unto; leaving all contenting pleasures and mundall delights, to reside here with much turmoil, which I will rather do than see God's glory diminished, my King and country dishonoured, and these poor souls I have in charge revived, which would quickly happen if I should leave them; so few I have with me fit to command or manage the business: Mr. Whitaker, their preacher, complaineth, and much mufeth, that so few of our English ministers, that were so hot against the surplice and subscription come hither, where neither is spoken of. Do they not wilfully hide their talents, or keep themselves at home, for fear of losing a few pleasures; be there not any among them of Moses's mind, and of the apostles, that forsook all to follow Christ? but I refer them to the Judge of all hearts, and to the King that shall reward every one according to his talent.

From Virginia, June 18, 1614.

The business being brought to this perfection, Captain Argall returned for England in the latter end of June 1614, arriving in England, and bringing these good tidings to the council and company by the assistances of Sir Thomas Gates, that also had returned from Virginia but the March before; it was presently concluded, that to supply this good success with all expedition, the standing lottery should be drawn with all diligent conveniency, and that posterity may remember upon occasion to use the like according to the declaration, I think it not amiss to remember thus much.

The

The Contents of the Declaration of the Lottery published by the Council.

IT is apparent to the world, by how many former proclamations, we manifested our intents to have drawn out the great standing lottery long before this, which not falling out as we desired, and others expected, whose monies are adventured therein, we thought good, therefore, for the avoiding all unjust and sinister constructions, to resolve the doubts of all indifferent minded, in three special points for their better satisfaction.

But ere I go any further, let us remember there was a running lottery used a long time in St. Paul's Church-yard, where this stood, that brought into the treasury good sums of money daily, though the lot was but small.

Now for the points: the first is, for as much as the adventurers came in so slackly for the year past, without prejudice to the generality, in losing the blanks and prizes, we were forced to petition to the Honourable Lords, who out of their noble care to further this plantation, have recommended their letters to the countries, cities, and good towns in England, which we hope by sending in their voluntary adventurers will sufficiently supply us.

The second, for satisfaction to all honest well affected minds, is, that though this expectation answer not our hopes, yet we have not failed in our Christian care the good of that colony, to whom we have lately sent two sundry supplies, and were they but now supplied with more hands, we should soon resolve the division of the country by lot, and so lessen the general charge.

The third is, our constant resolution, that seeing our credits are so far engaged to the Honourable Lords and the whole state, for the drawing this great lottery, which we intend shall be without delay the 26th of June next, desiring all such as have undertaken with books to solicit their friends, that they will not withhold their monies till the last month be expired, lest we be unwillingly forced to proportion a less value and number of our blanks and prizes, which hereafter followeth.

Welcomes.

	Crowns.
To him that first shall be drawn out with a blank - - - - -	100
To the second - - - - -	50
To the third - - - - -	25
To him that every day during the drawing of this lottery shall be first drawn out with a blank - - - - -	10

Prizes.

	Crowns.
1 Great prize of - - - - -	4500
2 Great prizes, each of - - - - -	2000
4 Great prizes, each of - - - - -	1000
6 Great prizes, each of - - - - -	500
10 Prizes, each of - - - - -	300
20 Prizes, each of - - - - -	200
100 Prizes, each of - - - - -	100
200 Prizes, each of - - - - -	50
400 Prizes, each of - - - - -	20

1000

	Crowns.
1000 Prizes, each of	10
1000 Prizes, each of	8
1000 Prizes, each of	6
4000 Prizes, each of	4
1000 Prizes, each of	3
1000 Prizes, each of	2

Rewards.

	Crowns.
To him that shall be last drawn out with a blank	25
To him that putteth in the greatest lot under one name	400
To him that putteth in the second greatest number	300
To him that putteth in the third greatest number	200
To him that putteth in the fourth greatest number	100

If divers be of equal number, their rewards are to be divided proportionally.

Addition of new Rewards.

The blank that shall be drawn out next before the great prize shall have	25
The blank that shall be drawn out next after the said great prize	25
The blanks that shall be drawn out immediately before the two next great prizes shall have each of them	20
The several blanks next after them, each shall have	20
The several blanks next before the four great prizes, each shall have	15
The several blanks next after them, each shall have	15
The several blanks next before the six great prizes, each shall have	10
The several blanks next after them, each shall have	10

The prizes, welcomes, and rewards shall be paid in ready money, plate, or other goods reasonably rated; if any dislike of the plate or goods, he shall have money, abating only the tenth part, except in small prizes of ten crowns or under.

The money for the adventurers is to be paid to Sir Thomas Smith, knight, and treasurer for Virginia, or such officers as he shall appoint in city or country, under the common seal of the company for the receipt thereof.

All prizes, welcomes, and rewards, drawn wherever they dwell, shall of the treasurer have present pay; and whosoever under one name or poesy payeth three pounds in ready money, shall receive six shillings and eight-pence, or a silver spoon of that value at his choice.

About this time it chanced a Spanish ship beat to and again before Point Comfort, and at last sent ashore their boat as desirous of a pilot. Captain James Davis, the governor, immediately gave them one, but he was no sooner in the boat, but away they went with him, leaving three of their companions behind them, this sudden accident occasioned some distrust, and a strict examination of those three thus left, yet with as good usage as our estate could afford them. They only confessed having lost their admiral; accident had forced them into those parts, and two of them were captains, and in chief authority in the fleet; thus they lived till one of them was found to be an Englishman, and had been the Spaniards' pilot for England in 1588, and having here induced some mal-contents to believe his projects, to run away with a small bark, which was apprehended, some executed, and he expecting but the hangman's courtesy, directly

directly confessed that two or three Spanish ships was at sea, purposely to discover the estate of the colony, but their commission was not to be opened till they arrived in the bay, so that of any thing more he was utterly ignorant. One of the Spaniards at last died, the other was sent for England, but this reprieved, till Sir Thomas Dale hanged him at sea in his voyage homeward; the English pilot they carried for Spain, whom after a long time imprisonment, with much suit was returned for England.

Whilst those things were effecting, Sir Thomas Dale having settled to his thinking all things in good order, made choice of one Mr. George Yearly to be deputy-governor in his absence, and so returned for England, accompanied with Pocahontas, the King's daughter, and Mr. Rolfe her husband, and arrived at Plymouth the 12th of June 1616.

The Government left to Captain Yearly.

NOW a little to commentary upon all these proceedings, let me leave but this as a caveat by the way; if the alteration of government hath subverted great empires, how dangerous is it then in the infancy of a commonwealth? The multiplicity of governors is a great damage to any state, but uncertain daily changes are burdensome, because their entertainments are chargeable, and many will make hay whilst the sun doth shine, however it shall fare with the generality.

This dear bought land with so much blood and cost, hath only made some few rich, and all the rest losers. But it was intended at the first, the first undertakers should be first preferred and rewarded, and the first adventurers satisfied, and they of all the rest are the most neglected; and those that never adventured a groat, never saw the country, nor ever did any service for it, employed in their places, adorned with their deserts, and enriched with their ruins; and when they are fed fat, then in cometh others so lean as they were, who through their omnipotency doth as much. Thus what one officer doth another undoth, only aiming at their own ends; thinking all the world derides his dignity, cannot fill his coffers being in authority with any thing. Every man hath his mind free, but he can never be a true member to that estate, that to enrich himself beggars all the country. Which bad course there are many yet in this noble plantation, whose true honour and worth as much scorns it, as the other love it; for the nobility and gentry there is scarce any of them expects any thing but the prosperity of the action: and there are some merchants and others, I am confidently persuaded, do take more care and pains, nay, and at their continual great charge, than they could be hired to for the love of money, so honestly regarding the general good of this great work, they would hold it worse than sacrilege, to wrong it but a shilling, or extort upon the common soldiers a penny. But to the purpose, and to follow the history.

Mr. George Yearly, now invested deputy-governor by Sir Thomas Dale, applied himself for the most part in planting tobacco, as the most present commodity they could devise for a present gain, so that every man betook himself to the best place he could for the purpose: now though Sir Thomas Dale had caused such an abundance of corn to be planted, that every man had sufficient, yet the supplies sent us, came so unfurnished as quickly eased us of our superfluity. To relieve their necessities, he sent to the Chickahamians for the tribute-corn Sir Thomas Dale and Captain Argall had conditioned for with them: but such a bad answer they returned him, that he drew together one hundred of his best shot, with whom he went to Chickahamania; the people in some places used him indifferently, but in most places with

with much scorn and contempt, telling him he was but Sir Thomas Dale's man, and they had payed his master according to condition, but to give any to him they had no such order, neither would they obey him as they had done his master; after he had told them his authority, and that he had the same power to enforce them that Dale had, they dared him to come on shore to fight, presuming more of his not daring, than their own valour. Yearly seeing their insolencies, made no great difficulty to go on shore at Ozinies, and they as little to encounter him: but marching from thence towards Mamanahunt, they put themselves in the same order they see us, lead by their Captain Kiffanacomen, governor of Ozinies, and so marched close along by us, each as threatening other who should first begin. But that night we quartered against Mamana-hunt, and they passed the river. The next day we followed them; there are few places in Virginia had then more plain ground together, nor more plenty of corn, which although it was but newly gathered, yet they had hid it in the woods where we could not find it: a good time we spent thus in arguing the cause, the savages without fear standing in troops amongst us, seeming as if their countenances had been sufficient to daunt us: what other practices they had I know not, but to prevent the worst, our captain caused us all to make ready, and upon the word, to let fly among them, where he appointed: others also he commanded to seize on them they could for prisoners; all which being done according to our direction, the captain gave the word, and we presently discharged, where twelve lay, some dead, the rest for life sprawling on the ground, twelve more we took prisoners, two whereof were brothers, two of their eight elders, the one took by Serjeant Boothe, the other by Robert, a Polonian; near one hundred bushels of corn we had for their ransoms, which was promised the soldiers for a reward, but it was not performed: now Opechancanough had agreed with our captain for the subjecting of those people, that neither he nor Powhatan could ever bring to their obedience, and that he should make no peace with them without his advice: in our return by Ozinies with our prisoners, we met Opechancanough, who with much ado feigned with what pains he had procured their peace, the which to requite, they called him the King of Ozinies, and brought him from all parts many presents of beads, copper, and such trash as they had; here as at many other times we were beholden to Captain Henry Spilman our interpreter, a gentleman who had lived long time in this country, and sometimes a prisoner among the savages, and done much good service, though but badly rewarded. From hence we marched towards James Town; we had three boats loaded with corn and other luggage, the one of them, being more willing to be at James Town with the news than the other, was overfet, and eleven men cast away with the boat, corn and all their provision; notwithstanding, this put all the rest of the savages in that fear, especially in regard of the great league we had with Opechancanough, that we followed our labours quietly, and in such security, that divers savages of other nations daily frequented us with what provisions they could get, and would guide our men on hunting, and often hunt for us themselves. Captain Yearly had a savage or two so well trained up to their pieces, they were as expert as any of the English, and one he kept purposely to kill him fowl. There were divers others had savages in like manner for their men. Thus we lived together as if we had been one people, all the time Captain Yearly stayed with us; but such grudges and discontents daily increased among ourselves, that upon the arrival of Captain Argall, sent by the council and company to be our governor, Captain Yearly returned for England in the year 1617.

From the writings of Captain NATHANIEL POWELL, WILLIAM CANTRILL, Serjeant BOOTHE, EDWARD GURGANNEY.

During this time the Lady Rebecca, alias Pocahontas, daughter to Powhatan, by the diligent care of Mr. John Rolfe, her husband and his friends, was taught to speak such English as might well be understood, well instructed in christianity, and was become very formal and civil after our English manner; she had also by him a child, which she loved most dearly, and the treasurer and company took order both for the maintenance of her and it, besides there were divers persons of great rank and quality had been very kind to her; and before she arrived at London, Captain Smith, to deserve her former courtesies, made her qualities known to the Queen's most Excellent Majesty and her court, and wrote a little book to this effect to the Queen: an abstract whereof followeth:

To the most high and virtuous Princess Queen Anne of Great Britain.

Most admired Queen,

THE love I bear my God, my King, and country, hath so often emboldened me in the worst of extreme dangers, that now honesty doth constrain me presume thus far beyond myself to present Your Majesty this short discourse: if ingratitude be a deadly poison to all honest virtues, I must be guilty of that crime, if I should omit any means to be thankful. So it is,

That some ten years ago, being in Virginia, and taken prisoner by the power of Powhatan, their chief king, I received from this great savage exceeding great courtesy, especially from his son Nantaquaus, the most manliest, comeliest, boldest spirit I ever saw in a savage, and his sister Pocahontas, the king's most dear and well-beloved daughter, being but a child of twelve or thirteen years of age, whose compassionate pitiful heart, of my desperate state, gave me much cause to respect her; I being the first christian this proud King and his grim attendants ever saw, and thus enthralled in their barbarous power, I cannot say I felt the least occasion of want that was in the power of those my mortal foes to prevent, notwithstanding all their threats. After some six weeks fattening amongst those savage courtiers, at the minute of my execution, she hazarded the beating out of her own brains to save mine, and not only that, but so prevailed with her father, that I was safely conducted to James Town, where I found about eight-and-thirty miserable poor and sick creatures, to keep possession of all those large territories of Virginia, such was the weakness of this poor commonwealth, as had the savages not fed us, we directly had starved.

And this relief, most gracious Queen, was commonly brought us by this Lady Pocahontas, notwithstanding all these passages when inconstant Fortune turned our peace to war, this tender virgin would still not spare to dare to visit us, and by her our jars have been oft appeased, and our wants still supplied; were it the policy of her father thus to employ her, or the ordinance of God thus to make her his instrument, or her extraordinary affection to our nation, I know not; but of this I am sure, when her father, with the utmost of his policy and power, sought to surprize me, having but eighteen with me, the dark night could not affright her from coming through the irksome woods, and with watered eyes, gave me intelligence, with her best advice, to escape his fury; which had he known, he had surely slain her. James Town, with her wild train, she as freely frequented as her father's habitation; and during the time of two or three years, she next, under God, was still the instrument to preserve this colony from death, famine, and utter confusion, which if in those times had once been dissolved, Virginia might have lain as it was at our first arrival to this day. Since then this business having

been turned and varied by many accidents from that I left it at, it is most certain, after a long and troublesome war, after my departure, betwixt her father and our colony, all which time she was not heard of, about two years after she herself was taken prisoner, being so detained near two years longer; the colony by that means was relieved, peace concluded, and at last, rejecting her barbarous condition, was married to an English gentleman, with whom at this present she is in England; the first Christian ever of that nation, the first Virginian ever spake English, or had a child in marriage by an Englishman, a matter surely, if my meaning be truly considered and well understood, worthy a Princess's understanding.

Thus, most gracious Lady, I have related to Your Majesty, what at your best leisure our approved histories will account you at large, and done in the time of Your Majesty's life, and however this might be presented you from a more worthy pen, it cannot from a more honest heart; as yet I never begged any thing of the state, or any, and it is my want of ability and her exceeding desert, your birth, means and authority, her birth, virtue, want, and simplicity, doth make me thus bold, humbly to beseech Your Majesty to take this knowledge of her, though it be from one so unworthy to be the reporter as myself, her husband's estate not being able to make her fit to attend Your Majesty: the most and least I can do, is to tell you this, because none so oft hath tried it as myself, and the rather being of so great a spirit, however her stature: if she should not be well received, seeing this kingdom may rightly have a kingdom by her means; her present love to us and christianity, might turn to such scorn and fury, as to divert all this good to the worst of evil, where finding so great a Queen should do her some honour more than she can imagine, for being so kind to your servants and subjects, would so ravish her with content, as endear her dearest blood to effect that Your Majesty and all the King's honest subjects most earnestly desire; and so I humbly kiss your gracious hands.

Being about this time preparing to set sail for New England, I could not stay to do her that service I desired, and she well deserved; but hearing she was at Branford, with divers of my friends, I went to see her: after a modest salutation, without any word, she turned about, obscured her face, as not seeming well contented; and in that humour, her husband, with divers others, we all left her two or three hours, repenting myself to have writ she could speak English. But not long after, she began to talk, and remembered me well what courtesies she had done; saying, "You did promise Powhatan what was yours should be his, and he the like to you; you called him father, being in his land a stranger, and by the same reason, so must I do you:" which, though I would have excused, I durst not allow of that title, because she was a King's daughter. With a well-set countenance, she said, "Were you not afraid to come into my father's country, and caused fear in him and all his people (but me); and fear you here I should call you father? I tell you then I will, and you shall call me child, and so I will be for ever and ever your countryman. They did tell us always you were dead, and I knew no other till I came to Plymouth; yet Powhatan did command Vetamatomakkin to seek you, and know the truth, because your countrymen will lie much."

This savage, one of Powhatan's council, being amongst them held an understanding fellow, the King purposely sent him, as they say, to number the people here, and inform him well what we were, and our state. Arriving at Plymouth, according to his directions, he got a long stick, whereon by notches he did think to have kept the number of all the men he could see, but he was quickly weary of that task; coming to London, where by chance I met him, having renewed our acquaintance, where many were desirous to hear and see his behaviour, he told me, Powhatan did bid him to find me out,
to

to shew him our God, the King, Queen, and Prince, I so much had told them of: concerning God, I told him the best I could; the King, I heard, he had seen, and the rest he should see when he would; he denied ever to have seen the King, till by circumstances he was satisfied he had; then he replied very sadly, "You gave Powhatan a white dog, which Powhatan fed as himself; but your King gave me nothing, and I am better than your white dog."

The small time I staid in London, divers courtiers and others, my acquaintances, hath gone with me to see her, that generally concluded, they did think God had a great hand in her conversion, and they have seen many English ladies worse favoured, proportioned, and behaved; and as since I have heard it pleased both the King and Queen's Majesty honourably to esteem her, accompanied with that honourable lady the Lady De la Warre, and that honourable Lord her husband, and divers other persons of good qualities, both publicly at the masks and otherwise, to her great satisfaction and content, which doubtless she would have deserved, had she lived to arrive in Virginia.

The Government devolved to Captain Samuel Argall, 1617.

THE treasurer, council, and company having well furnished, Captain Samuel Argall, the lady Pocahontas alias Rebecca, with her husband and others, in the good ship called the George, it pleased God, at Gravesend, to take this young lady to his mercy, where she made not more sorrow for her unexpected death, than joy to the beholders, to hear and see her make so religious and godly an end. Her little child, Thomas Rolfe, therefore was left at Plymouth, with Sir Lewis Stukely, that desired the keeping of it. Captain Hamar, his vice-admiral, was gone before, but he found him at Plymouth. In March they set sail, 1617, and in May he arrived at James Town, where he was kindly entertained by Captain Yearley and his company in a martial order, whose right hand file was led by an Indian. In James Town he found but five or six houses, the church down, the pallisadoes broken, the bridge in pieces, the well of fresh water spoiled; the store-house they used for the church, the market-place, and streets, and all other spare places planted with tobacco, the savages as frequent in their houses as themselves, whereby they were become expert in our arms, and had a great many in their custody and possession, the colony dispersed all about, planting tobacco. Captain Argall not liking those proceedings, altered them agreeable to his own mind, taking the best order he could for repairing those defects, which did exceedingly trouble us; we were constrained every year to build and repair our old cottages, which were always a decaying in all places of the country; yea, the very courts of guard built by Sir Thomas Dale, was ready to fall, and the pallisadoes not sufficient to keep out hogs. Their number of people were about four hundred, but not past two hundred fit for husbandry and tillage: we found there in all one hundred and twenty-eight cattle, and fourscore and eight goats, besides innumerable numbers of swine; and good plenty of corn in some places: yet the next year the captain sent out a frigate and a pinnace, that brought us near six hundred bushels more, which did greatly relieve the whole colony: for from the tenants we seldom had above four hundred bushels of rent corn to the store, and there was not remaining of the companies' company, past four-and-fifty men, women and children.

This year having planted our fields, came a great drought, and such a cruel storm of hail, which did such spoil both to the corn and tobacco, that we reaped but small profit, the magazine that came in the George, being five months in her passage, proved

very badly conditioned, but ere she arrived, we had gathered and made up our tobacco, the best at three shillings the pound, the rest at eighteen pence.

To supply us, the council and company, with all possible care and diligence, furnished a good ship, of some two hundred and fifty tons, with two hundred people and the Lord la Ware. They set sail in April, and took their course by the western isles, where the governor of the isle of Saint Michael received the Lord la Ware, and honourably feasted him, with all the content he could give him. Going from thence, they were long troubled with contrary winds, in which time many of them fell very sick, thirty died, one of which number was that most honourable lord governor the Lord La Ware, whose most noble and generous disposition is well known, to his great cost, had been most forward in this business, for his country's good : yet this tender state of Virginia was not grown to that maturity to maintain such state and pleasure as was fit for such a personage, with so brave and great attendance : for some small number of adventurous gentlemen to make discoveries, and lie in garrison, ready upon any occasion to keep in fear the inconstant savages, nothing were more requisite, but to have more to wait and play than work, or more commanders and officers than industrious labourers, was not so necessary : for in Virginia, a plain soldier, that can use a pick-axe and spade, is better than five knights, although they were knights that could break a lance ; for men of great place, not inured to those encounters, when they find things not suitable, grow many times so discontented, they forget themselves, and oft become so careless, that a discontented melancholy brings to them much sorrow, and to others much misery. At last they stood in for the coast of New England, where they met a small Frenchman, rich of beavers and other furs. Though we had here but small knowledge of the coast nor country, yet they took such an abundance of fish and fowl, and so well refreshed themselves there with wood and water, as by the help of God thereby, having been at sea sixteen weeks, got to Virginia, who without this relief had been in great danger to perish. The Frenchmen made them such a feast, with such an abundance of variety of fish, fowl, and fruits, as they all admired, and little expected that wild wilderness could afford such wonderful abundance of plenty. In this ship came about two hundred men, but very little provision, and the ship called the Treasurer came in again not long after with forty passengers ; the Lord la Ware ship, lying in Virginia three months, we victualled her with three score bushels of corn, and eight hogheads of flesh, besides other victuals she spent whilst they tarried there : this ship brought us advice that great multitudes were a preparing in England to be sent, and relied much upon that victuals they should find here : whereupon our captain called a council, and writ to the council here in England the state of the colony, and what a great misery would ensue, if they sent not provision as well as people ; and what they did suffer for want of skilful husbandmen, and means to set their ploughs on work, having as good ground as any man can desire, and about forty bulls and oxen, but they wanted men to bring them to labour, and irons for the ploughs, and harness for the cattle. Some thirty or forty acres we had sown with one plough, but it stood so long on the ground before it was reaped, it was most shaken, and the rest spoiled with the cattle and rats in the barn, but no better corn could be for the quantity.

Richard Killingbeck being with the captain at Kekoughtan, desired leave to return to his wife at Charles Hundred, he went to James Town by water, there he got four more to go with him by land, but it proved that he intended to go trade with the Indians of Chickahamania, where making shew of the great quantity of truck they had, which the savages perceiving, partly for their truck, partly for revenge of some friends they pretended

pretended should have been slain by Captain Yearley, one of them, with an English piece, shot Killingbeck dead; the other savages assaulted the rest and slew them, stripped them, and took what they had; but fearing this murder would come to light, and might cause them to suffer for it, would now proceed to the perfection of villainy; for presently they robbed their Machacomocko house of the town, stole all the Indian treasure thereout, and fled into the woods, as other Indians related. On Sunday following, one Parfax, that dwelt a mile from the town, going to church, left his wife and three small children safe at home, as he thought, and a young youth: she supposing prayer to be done, left the children, and went to meet her husband; presently after came three or four of those fugitive savages, entered the house, and slew a boy and three children, and also another youth that stole out of the church in prayer time, meeting them, was likewise murdered. Of this disaster the captain sent to Opechankanough for satisfaction; but he excused the matter, as altogether ignorant of it; at the same time the savages that were robbed were complaining to Opechankanough, and much feared the English would be revenged on them, so that Opechankanough sent to Captain Argall, to assure him the peace should never be broken by him, desiring that he would not revenge the injury of those fugitives upon the innocent people of that town, which town he should have, and sent him a basket of earth, as possession given of it, and promised, so soon as possibly they could catch these robbers, to send him their heads for satisfaction, but he never performed it.

SAMUEL ARGALL, JOHN ROLFE.

A Relation from Mr. John Rolfe, June 15, 1618.

CONCERNING the state of our new common-wealth, it is somewhat bettered, for we have sufficient to content ourselves, though not in such abundance as is vainly reported in England. Powhatan died this last April, yet the Indians continue in peace. Itopatin, his second brother, succeeds him, and both he and Opechankanough have confirmed our former league. On the 11th of May, about ten of the clock in the night, happened a most fearful tempest, but it continued not past half an hour, which poured down hailstones eight or nine inches about, that none durst go out of their doors, and though it tore the bark and leaves of the trees, yet we find not they hurt either man or beast; it fell only about James Town, for but a mile to the east, and twenty to the west there was no hail at all. Thus in peace every man followed his building and planting without any accidents worthy of note. Some private differences happened betwixt Captain Bruster and Captain Argall, and Captain Argall and the company here in England; but of them I am not fully informed, neither are they here for any use, and therefore unfit to be remembered. In December one Captain Stallings, an old planter in those parts, being employed by them of the west country, for a fishing voyage, in New-England, fell foul of a Frenchman, whom he took, leaving his own ship to return for England, himself with a small company remained in the French bark, some small time after upon the coast, and thence returned to winter in Virginia.

The Government surrender to Sir George Yearley.

FOR to begin with the year of our Lord 1619, there arrived a little pinnace privately from England about Easter, for Captain Argall, who taking order for his affairs, within four or five days returned in her, and left for his deputy, Captain Nathaniel Powell.

On the 18th of April, which was but ten or twelve days after, arrived Sir George Yearley, by whom we understood Sir Edwin Sands was chosen treasurer, and Mr. John Farrar his deputy, and what great supplies was a preparing to be sent us, which did ravish us so much with joy and content, we thought ourselves now fully satisfied for our long toil and labours, and as happy men as any in the world. Notwithstanding, such an accident happened Captain Stallings, the next day his ship was cast away, and he not long after slain in a private quarrel. Sir George Yearley, to begin his government, added to be of his council, Captain Francis West, Captain Nathaniel Powell, Mr. John Pory, Mr. John Rolfe, and Mr. William Wickam, and Mr. Samuel Macocke, and propounded to have a general assembly with all expedition. Upon the 12th of this month, came in a pinnace of Captain Bargrave's, and on the 17th, Captain Lownes, and one Mr. Evans, who intended to plant themselves at Waraskoyack, but now Opechan-kanough will not come at us, that causes us to suspect his former promises.

In May came in the Margaret of Bristol, with four and thirty men, all well and in health, and also many devout gifts, and we were much troubled in examining some scandalous letters sent into England, to disgrace this country with barrenness, to discourage the adventurers, and so bring it and us to ruin and confusion; notwithstanding we find by them of best experience, an industrious man not other ways employed, may well tend four acres of corn, and one thousand plants of tobacco, and where they say an acre will yield but three or four barrels, we have ordinarily four or five, but of new ground, six, seven, and eight, and a barrel of pease and beans, which we esteem as good as two of corn, which is after thirty or forty bushels an acre; so that one man may provide corn for five, and apparel for two, by the profit of his tobacco: they say also English wheat will yield but sixteen bushels an acre, and we have reaped thirty; besides to manure the land, no place hath more white and blue marble than here, had we but carpenters to build and make carts and ploughs, and skilful men that know how to use them, and train up our cattle to draw them, which though we endeavour to effect, yet our want of experience brings but little to perfection but planting tobacco, and yet of that many are so covetous to have much, they make little good; besides there are so many sophisticating tobacco-mongers in England, were it never so bad, they would sell it for Verinas, and the trash that remaineth should be Virginia, such devilish bad minds we know some of our own countrymen do bear, not only to the business, but also to our mother England herself; could they or durst they as freely defame her.

The 25th of June came in the Trial with corn and cattle all in safety, which took from us clearly all fear of famine; then our governor and council caused burgesses to be chosen in all places, and met at a general assembly, where all matters were debated thought expedient for the good of the colony, and Captain Ward was sent to Monahigan in New England, to fish in May, and returned the latter end of May, but to small purpose, for they wanted salt: the George also was sent to Newfoundland with the Cape merchant; there she bought fish, that defrayed her charges, and made a good voyage in seven weeks. About the last of August came in a Dutch man of war that sold us twenty negroes, and Iapazous, King of Patawomeck, came to James Town, to desire two ships to come trade in his river, for a more plentiful year of corn had not been in a long time, yet very contagious, and by the treachery of one Poule in a manner turned heathen, we were very jealous the savages would surprise us. The governors have bounded four corporations; which is the companies, the university, the governors and glebe land: Ensign William Spencer, and Thomas Barret a serjeant, with

some others of the ancient planters being set free, we are the first farmers that went forth, and have chosen places to their content, so that now knowing their own land, they strive who should exceed in building and planting. The fourth of November the Bonanoua came in with all her people lusty and well; not long after one Mr. Dirmer sent out by some of Plymouth, for New England, arrived in a bark of five tons, and returned the next spring; notwithstanding the ill rumours of the unwholesomeness of James Town, the new comers that were planted at Old Paspaheghe, little more than a mile from it, had their healths better than any in the country. In December Captain Ward returned from Patawomeck; the people there dealt falsely with him, so that he took 800 bushels of corn from them perforce. Captain Woddiffe of Bristol, came in not long after, with all his people lusty and in health, and we had two particular governors sent us, under the titles of deputies to the company, the one to have charge of the College Lands, the other of the Company's: now you are to understand, that because there have been many complaints against the governors, captains, and officers in Virginia, for buying and selling men and boys, or to be set over from one to another for a yearly rent, was held in England a thing most intolerable, or that the tenants or lawful servants should be put from their places, or abridged their covenants, was so odious, that the very report thereof brought a great scandal to the general action. The council in England did send many good and worthy instructions for the amending those abuses, and appointed a hundred men should, at the companies' charge be allotted and provided to serve and attend the governor during the time of his government, which number he was to make good at his departure, and leave to his successor in like manner, fifty to the deputy-governor of the College Land, and fifty to the deputy of the Company's Land, fifty to the treasurer, to the secretary five and twenty, and more to the marshal and Cape merchant; which they are also to leave to their successors, and likewise to every particular officer such a competency, as he might live well in his office, without oppressing any under their charge, which good law I pray God it be well observed; and then we may truly say in Virginia, we are the most happy people in the world.

By me, JOHN ROLFE.

There went this year by the Company's records eleven ships and twelve hundred and sixteen persons to be thus disposed on: tenants for the governor's land four score, besides fifty sent the former spring; for the Company's land a hundred and thirty; for the college a hundred; for the glebe land fifty; young women to make wives ninety; servants for public service fifty; and fifty more whose labours were to bring up thirty of the infidels' children; the rest were sent to private plantations.

Two persons unknown have given fair plate and ornaments for two communion tables, the one at the college, the other at the church of Mrs. Mary Robinson, who towards the foundation gave two hundred pounds; and another unknown person sent to the treasurer five hundred and fifty pounds, for the bringing up of the savage children in Christianity. Mr. Nicholas Farrar, deceased, hath by his will given three hundred pounds to the college, to be paid when there shall be ten young savages placed in it; in the mean time four-and-twenty pounds yearly to be distributed unto three discreet and godly young men in the colony, to bring up three wild young infidels in some good course of life; also there were granted eleven patents, upon condition to transport people and cattle to increase the plantation.

A def-

A desperate Sea-fight betwixt two Spanish Men of War and a small English Ship, at the Isle of Dominica, going to Virginia, by Captain Anthony Chester.

HAVING taken our journey towards Virginia in the beginning of February, a ship called the Margaret and John, of one hundred and sixty tons, eight iron pieces and a falcon, with eighty passengers besides sailors, after many tempests and foul weather, about the 14th of March we were in 13 and a half of northerly latitude, where we descried a ship at hull: it being but a fair gale of wind, we edged towards her to see what she was, but she presently set sail, and ran us quickly out of sight. This made us keep our course for Metfalina, and the next day passing Dominica, we came to an anchor at Guadaloupe, to take in fresh water. Six Frenchmen there, cast away sixteen months ago, came aboard us; they told us, that a Spanish man of war, but seven days before, was seeking his consort; and this was she we descried at hull. At Mevis we intended to refresh ourselves, having been eleven weeks pestered in this unwholesome ship; but there we found two tall ships with the Hollanders' colours, but necessity forcing us on shore, we anchored fair by them, and in friendly manner sent to hail them; but seeing they were Spaniards, retiring to our ship, they sent such a volley of shot after us, that shot the boat, split the oars, and some through the cloaths, yet not a man hurt; and then followed with their great ordnance, that many times over-raked our ship, which being so cumbered with the passengers' provisions, our ordnance was not well fitted, nor any thing as it should have been; but perceiving what they were, we fitted ourselves the best we could to prevent a mischief, seeing them warp themselves to windward, we thought it not good to be boarded on both sides at an anchor; we intended to set sail, but that the vice-admiral battered so hard our starboard side, that we fell to our business, and answered their unkindness with such fair shot from a demi-culverine, that shot her between wind and water, whereby she was glad to leave us and her admiral together. Coming fair by our quarter, he took in his Holland flag, and put forth his Spanish colours, and so hailed us.

We quietly and quickly answered him, both what we were and whither bound, relating the effect of our commission, and the cause of our coming thither for water, and not to annoy any of the King of Spain's subjects, nor any. She commanded us amain for the King of Spain; we replied, with enlarging the particulars, what friends both the Kings, our masters, were; and as we would do no wrong, we would take none. They commanded us aboard to shew our commission, which we refused, but if they would send their boat to us willingly, they should see it. But for answer they made two great shot at us, with a volley of small shot, which caused us to leave the decks; then, with many ill words, they laid us aboard, which caused us to raise our main-sail, and give the word to our small shot, which lay close and ready, that paid them in such sort, they quickly retired. The fight continued half an hour, as if we had been environed with fire and smoke, until they discovered the waste of our ship naked, where they bravely boarded us loose for loose, hasting with pikes and swords to enter, but it pleased God so to direct our captain, and encourage our men with valour, that our pikes being formerly placed under our half-deck, and certain shot lying close for that purpose under the port-holes, encountered them so rudely, that their fury was not only rebated, but their hastiness intercepted, and their whole company beaten back: many of our men were hurt, but I am sure they had two for one.

In the end they were violently repulsed, until they were reinforced to charge again by their commands, who standing upon their honours, thought it a great indignity to
be

be so affronted, which caused a second charge, and that answered with a second beating back: whereat the captain grew enraged, and constrained them to come on again afresh, which they did so effectually, that questionless it had wrought an alteration, if the God that tosseth monarchies, and teareth mountains, had not taught us to toss our pikes with prosperous events, and poured out a volley of small shot amongst them, whereby that valiant commander was slain, and many of his soldiers dropped down likewise on the top of the hatches. This we saw with our eyes, and rejoiced with it at our hearts, so that we might perceive good success coming on; our captain presently took advantage of their discomfiture, though with much commiseration of that resolute captain, and not only plied them again with our ordnance, but had more shot under the pikes, which was bestowed to good purpose, and amazed our enemies with the suddenness.

Amongst the rest, one Lucas, our carpenter's mate, must not be forgotten, who perceiving a way how to annoy them, as they were thus puzzled and in a confusion, drew out a minion under the half-deck, and there bent it upon them in such a manner, that when it was fired, the cases of stones and pieces of iron fell upon them so thick, as cleared the deck, and slew many; and in short time we saw few assailants, but such as crept from place to place covertly from the fury of our shot, which now was thicker than theirs: for although as far as we may commend our enemies, they had done something worthy of commendations; yet, either wanting men, or being overtaken with the unlooked for valour of our men, they now began to shrink, and give us leave to be wanton with our advantage. Yet we could only use but four pieces of ordnance, but they served the turn as well as all the rest: for she was shot so oft between wind and water, we saw they were willing to leave us, but by reason she was fast in the latch of our cable, which in haste of weighing our anchor hung aloof, she could not clear herself as she wrought to do, till one cut the cable with an axe, and was slain by freeing us. Having been aboard us two hours and a half, seeing herself clear, all the shot we had played on both sides, which lasted till we were out of shot, then we discovered the vice-admiral coming to her assistance, who began a-far off to ply us with their ordnance, and put us in mind we had another work in hand. Whereupon we separated the dead and hurt bodies, and manned the ship with the rest, and were so well encouraged we waived them amain. The admiral stood aloof off, and the other would not come within falcon shot, where she lay battering us till she received another payment from a demiculvering, which made her bear with the shore for smooth water to mend her leaks. The next morning they both came up again with us, as if they had determined to devour us at once, but it seemed it was but a bravado, though they forsook not our quarter for a time within musket shot: yet all the night only they kept us company, but made not a shot, during which time we had leisure to provide us better than before; but God be thanked they made only but a shew of another assault, ere suddenly the vice-admiral fell astern, and the other lay shaking in the wind, and so they both left us. The fight continued six hours, and was the more unwelcome, because we were so ill provided, and had no intent to fight, nor give occasion to disturb them. As for the loss of men, if religion had not taught us what by the providence of God is brought to pass, yet daily experience might inform us, of the dangers of wars, and perils at sea, by storms, tempests, shipwrecks, encounters with pirates, meeting with enemies, cross winds, long voyages, unknown shores, barbarous nations, and an hundred inconveniencies of which human policies are not capable, nor men's conjectures apprehensive. We lost Doctor Bohun, a worthy valiant gentleman, (a long time brought up amongst the most learned surgeons, and physicians in Netherlands, and this his

second journey to Virginia); and seven slain outright, two died shortly of their wounds, sixteen was shot, whose limbs God be thanked was recovered without maim, and now settled in Virginia: how many they lost we know not, but we saw a great many lie on the decks, and their skippers run with blood, they were about three hundred tons a piece, each sixteen or twenty brass pieces. Captain Chester, who in this fight had behaved himself like a most vigilant, resolute, and a courageous soldier, as also our honest and valiant master, did still so comfort and encourage us by all the means they could, at last to all our great contents we arrived in Virginia, and from thence returned safely to England.

The Names of the Adventurers for Virginia, alphabetically set down, according to a printed Book, set out by the Treasurer and Council in this present Year, 1620.

A	
Sir William Aliffe,	Sir Thomas Bludder,
Sir Roger Aston,	Sir George Bolles,
Sir Anthony Ashley,	Sir John Bingley,
Sir John Akland,	Sir Thomas Button,
Sir Anthony Aucher,	Sir Henry Beddingfield,
Sir Robert Askwith,	Company of barbers-furgeons,
Doctor Francis Anthony,	Company of bakers,
Charles Anthony,	Richard Banister,
Edward Allen,	John Bancks,
Edmund Allen, Esquire,	Miles Bancks,
John Allen,	Thomas Barber,
Thomas Allen,	William Bonham,
William Atkinson, Esquire,	James Bryerley,
Richard Ashcroft,	William Barners,
Nicholas Andrews,	Anthony Barners, Esquire,
John Andrews the elder,	William Brewster,
John Andrews the younger,	Richard Brooke,
James Ascough,	Hugh Brooker, Esquire,
Giles Allington,	Ambrose Brewsey,
Morris Abbot,	John Brooke,
Ambrose Asten,	Matthew Bromridge,
James Askew,	Christopher Brooke, Esquire,
Anthony Abdey,	Martin Bond,
John Arundell, Esquire.	Gabriel Beadle,
	John Beadle,
	David Borne,
	Edward Barnes,
B	
Edward, Earl of Bedford,	John Badger,
James, Lord Bishop of Bath and Wells,	Edmund Brandvell,
Sir Francis Barrington,	Robert Bowyer, Esquire,
Sir Morice Barkley,	Robert Bateman,
Sir John Benet,	Thomas Britton,
Sir Thomas Beamont,	Nicholas Benson,
Sir Amias Bamfield,	Edward Bishop,
Sir John Bourcher,	Peter Burgoney,
Sir Edmond Bowyer,	Thomas Burgoney,

Robert Burgoney,
 Christopher Baron,
 Peter Benson,
 John Baker,
 John Buftoridge,
 Francis Burley,
 William Brown,
 Robert Barker,
 Samuel Burnham,
 Edward Barkley,
 William Bennet,
 Captain Edward Brewster,
 Thomas Brocket,
 John Bullock,
 George Bache,
 Thomas Bayly,
 William Barkley,
 George Butler,
 Timothy Bathurst,
 George Burton,
 Thomas Bret,
 Captain John Brough,
 Thomas Baker,
 John Blunt,
 Thomas Bayly,
 Richard and Edward Blunt,
 Mineon Burrell,
 Richard Blackmore,
 William Beck,
 Benjamin Brand,
 John Busbridge,
 William Burrell,
 William Barrett,
 Francis Baldwin,
 Edward Barber,
 Humphry Basse,
 Robert Bell,
 Matthew Bromrick,
 John Beaumont,
 George Barkley,
 Peter Bartle,
 Thomas Bretton,
 John Blount,
 Arthur Bromfeld, Esquire,
 William Berbloke,
 Charles Beck.

C

George Lord Archbishop of Canterbury,

William Lord Cranborne, now Earl of
 Salisbury,
 William Lord Compton, now Earl of
 Northampton,
 William Lord Cavendish, now Earl of
 Devonshire,
 Richard, Earl of Clanricard,
 Sir William Cavendish, now Lord Caven-
 dish,
 Gray, Lord Chandos,
 Sir Henry Cary,
 Sir George Calvert,
 Sir Lionel Cranfield,
 Sir Edward Cecill,
 Sir Robert Cotten,
 Sir Oliver Cromwell,
 Sir Anthony Cope,
 Sir Walter Cope,
 Sir Edward Carr,
 Sir Thomas Conisbie,
 Sir George Cary,
 Sir Edward Conwey,
 Sir Walter Chute,
 Sir Edward Culpeper,
 Sir Henry Cary, captain,
 Sir William Craven,
 Sir Walter Covert,
 Sir George Coppin,
 Sir George Chute,
 Sir Thomas Coventry,
 Sir John Cutts,
 Lady Cary,
 Company of Cloth-workers,
 City of Chichester,
 Robert Chamberlaine,
 Richard Chamberlaine,
 Francis Covill,
 William Coyse, Esquire,
 Abraham Chamberlayne,
 Thomas Carpenter,
 Anthony Crew,
 Richard Cox,
 William Crosley,
 James Chatfeild,
 Richard Caswell,
 John Cornelis,
 Randall Carter,
 Executors of Randall Carter,
 William Canning,

Edward

Edward Carve, Esquire,
 Thomas Cannon, Esquire,
 Richard Champion,
 Rawley Crashaw,
 Henry Collins,
 Henry Cromwell,
 John Cooper,
 Richard Cooper,
 John Casson,
 Thomas Colthurst,
 Allen Cotten,
 Edward Cage,
 Abraham Carthwright,
 Robert Coppin,
 Thomas Conock,
 John Clapham,
 Thomas Church,
 William Carpenter,
 Laurence Campe,
 James Cambell,
 Christopher Cletheroe,
 Matthew Cooper,
 George Chamber,
 Captain John Cooke,
 Captain Thomas Conwey, Esquire,
 Edward Culpeper, Esquire,
 Master William Crashaw,
 Abraham Colmer,
 John Culpeper,
 Edmund Colbey,
 Richard Cooper,
 Robert Creswell,
 John Cage, Esquire,
 Matthew Cave,
 William Crowe,
 Abraham Carpenter,
 John Crowe,
 Thomas Cordell,
 Richard Connock, Esquire,
 William Compton,
 William Chester,
 Thomes Covell,
 Richard Carmarden, Esquire,
 William and Paul Canning,
 Henry Cromwell, Esquire,
 Simon Codrington,
 Clement Chichley,
 James Cullemore,
 William Cantrell.

D

Richard Earl of Dorset,
 Edward Lord Denny,
 Sir John Digbie, now Lord Digbie,
 Sir John Doderidge,
 Sir Drew Drewry the elder,
 Sir Thomas Dennis,
 Sir Robert Drewry,
 Sir John Davers,
 Sir Dudley Digs,
 Sir Marmaduke Dorrel,
 Sir Thomas Dale,
 Sir Thomas Denton,
 Company of Drapers,
 Thomas Bond, Esquire,
 David Bent, Esquire,
 Company of Dyers,
 Town of Dover,
 Mr. Richard Deane, alderman,
 Henry Dawkes,
 Edward Dichfield,
 William Dunne,
 John Davis,
 Matthew Dequefter,
 Philip Durdent,
 Abraham Dawes,
 John Dike,
 Thomas Draper,
 Lancelot Davis,
 Rowley Dawsey,
 William Dobson, Esquire,
 Anthony Dyot, Esquire,
 Avery Dranfield,
 Roger Dye,
 John Downes,
 John Drake,
 John Delbridge,
 Benjamin Decroe,
 Thomas Dyke,
 Jeffery Duppa,
 Daniel Darnelly,
 Sara Draper,
 Clement and Henry Dawkney.

E

Thomas, Earl of Exeter,
 Sir Thomas Everfield,
 Sir Francis Egiock,
 Sir Robert Edolph,

John

John Eldred, Esquire,
Willfam Evans,
Richard Evans,
Hugh Evans,
Ralph Ewens, Esquire,
John Elkin,
John Elkin,
Robert Evelin,
Nicholas Exton,
John Exton,
George Etheridge.

F

Sir Moyle Finch,
Sir Henry Fanshaw,
Sir Thomas Freake,
Sir Peter Fretchuile,
Sir William Fleetwood,
Sir Henry Fane,
Company of Fishmongers,
John Fletcher,
John Farmer,
Martin Freeman, Esquire,
Ralph Freeman,
William and Ralph Freeman,
Michael Fetiplace,
William Fettiplace,
Thomas Forest,
Edward Fleetwood, Esquire,
William Felgate,
William Field,
Nicholas Ferrar,
John Farrar,
Giles Francis,
Edward Fawcet,
Richard Farrington,
John Francklin,
Richard Frith,
John Ferne,
George Farmer,
Thomas Francis,
John Fenner,
Nicholas Fuller, Esquire,
Thomas Foxall,
William Fleet,
Peter Franck, Esquire,
Richard Fishborne,
William Faldoe,

John Fletcher and Company,
William Ferrars.

G

Lady Elizabeth Gray,
Sir John Gray,
Sir William Godolfine,
Sir Thomas Gates,
Sir William Gee,
Sir Richard Grobham,
Sir William Garaway,
Sir Francis Goodwin,
Sir George Goring,
Sir Thomas Grantham,
Company of Grocers,
Company of Goldsmiths,
Company of Girdlers,
John Geering,
John Gardiner,
Richard Gardiner,
John Gilbert,
Thomas Grave,
John Gray,
Nicholas Grieece,
Richard Goddard,
Thomas Gipps,
Peter Gates,
Thomas Gibbs, Esquire,
Laurence Greene,
William Greenwell,
Robert Garfet,
Robert Gore,
Thomas Gouge,
Francis Glanville, Esquire.

H

Henry, Earl of Huntingdon,
Lord Theophilus Howard, L. Walden,
Sir John Harrington, L. Harington,
Sir John Hollis, now Lord Hautein,
Sir Thomas Holecroft,
Sir William Harris,
Sir Thomas Harefleet,
Sir George Haiward,
Sir Warwick Heale,
Sir Baptift Hicks,
Sir John Hanham,
Sir Thomas Horwell,

Sir

Sir Thomas Hewit,
 Sir William Herrick,
 Sir Eustace Hart,
 Sir Pory Huntley,
 Sir Arthur Harris,
 Sir Edward Heron,
 Sir Persevall Hart,
 Sir Ferdinando Heiborne,
 Sir Lawrence Hide,
 Mr. Hugh Hamersley, Alderman,
 Mr. Richard Heron, Alderman,
 Richard Humble, Esquire,
 Mr. Richard Hackleuit,
 Edward Harrifon,
 George Holeman,
 Robert Hill,
 Griffin Hinton,
 John Hawkins,
 William Hancocke,
 John Harper,
 George Hawger,
 John Holt,
 John Huntley,
 Jeremy Heiden,
 Ralph Hamer,
 Ralph Hamer, jun.
 John Hodgefon,
 John Hanford,
 Thomas Harris,
 Richard Howell,
 Thomas Henshaw,
 Leonard Harwood,
 Triftram Hill,
 Francis Haselridge,
 Tobias Hinson,
 Peter Heightley,
 George Hawkenfon,
 Thomas Hackshaw,
 Charles Hawkens,
 John Hodgis,
 William Holland,
 Robert Hartley,
 Gregory Herft,
 Thomas Hodgis,
 William Hodgis,
 Roger Harris,
 John Harris,
 Mr. John Haiward,

James Haiward,
 Nicholas Hide, Esquire,
 John Hare, Esquire,
 William Hackwell, Esquire,
 Gressam Hoogan,
 Humfrey Hanford,
 William Hafelden,
 Nicholas Hooker,
 Doctor Anthony Hunton,
 John Hodfale,
 George Hooker,
 Anthony Hinton,
 John Hogfell,
 Thomas Hampton,
 William Hicks,
 William Holliland,
 Ralph Harrifon,
 Harman Harrifon.

Sir Thomas Jermyn,
 Sir Robert Johnson,
 Sir Arthur Ingram,
 Sir Francis Jones,
 Company of Ironmongers,
 Company of Innholders,
 Company of Imbroiderers,
 Bailiffs of Ipswich,
 Henry Jackson,
 Richard Ironfide,
 Mr. Robert Johnson, Alderman,
 Thomas Jones,
 William Jobson,
 Thomas Johnson,
 Thomas Jadwine,
 John Josua,
 George Ifam,
 Philip Jacobson,
 Peter Jacobson,
 Thomas Juxfon, fen.
 James Jewell,
 Gabriel Jaques,
 Walter Jobson,
 Edward James,
 Zachary Jones, Esquire,
 Anthony Irbye, Esquire,
 William Janfon,
 Humfrey Jobson.

Sir

K

Sir Valentine Knightley,
 Sir Robert Killegrew,
 Sir Charles Kelke,
 Sir John Kaile,
 Richard Kirrill,
 John Kirrill,
 Ralph King,
 Henry Kent,
 Town of Kingslynnne,
 John Kettleby, Esquire,
 Walter Kirkham, Esquire.

L

Henry, Earl of Lincoln,
 Robert, L. Lisle, now Earl of Leicester,
 Thomas, Lord La Ware,
 Sir Francis Leigh,
 Sir Richard Lowlace,
 Sir William Litton,
 Sir John Lewson,
 Sir William Lower,
 Sir Samuel Leonard,
 Sir Samson Leonard,
 Company of Leatherfellers,
 Thomas Laughton,
 William Lewson.
 Peter Latham,
 Peter Van Lore,
 Henry Leigh,
 Thomas Levar,
 Christopher Landman,
 Morris Lewellin,
 Edward Lewis,
 Edward Lewkin,
 Peter Lodge,
 Thomas Layer,
 Thomas Lawfon,
 Francis Lodge,
 John Langley,
 David Loide,
 John Levitt,
 Thomas Fox and Luke Lodge,
 Captain Richard Linley,
 Arnold Lulls,
 William Lawrence,
 John Landman,
 Nicholas Lichfield,

Nicholas Leate,
 Gedeon de Laune.

M

Philip, Earl of Montgomerie,
 Doctor George Mountaine, now Lord
 Bishop of Lincoln,
 William, Lord Mouteagle, now Lord
 Morley,
 Sir Thomas Mansell,
 Sir Thomas Mildmay,
 Sir William Maynard,
 Sir Humphrey May,
 Sir Peter Manhood,
 Sir John Merrick,
 Sir George More,
 Sir Robert Mansell,
 Sir Arthur Mannering,
 Sir David Murray,
 Sir Edward Michelborn,
 Sir Thomas Middleton,
 Sir Robert Miller,
 Sir Canaliere Maicott,
 Doctor James Meddin,
 Richard Martin, Esquire,
 Company of Mercers,
 Company of Merchant Tailors,
 Otho Mowdite,
 Captain John Martin,
 Arthur Moufe,
 Adrian More,
 Thomas Mountford,
 Thomas Morris,
 Ralph Moorton,
 Francis Mapes,
 Richard Maplesden,
 James Monger,
 Peter Monfell,
 Robert Middleton,
 Thomas Maile,
 John Martin,
 Josias Maude,
 Richard Morton,
 George Mafon,
 Thomas Maddock,
 Richard Moore,
 Nicholas Moone,
 Alfonsus Van Medkerk,
 Captain

Captain Henry Meoles,
Philip Mutes,
Thomas Mayall,
Humphrey Marret,
Jarvis Mundz,
Robert Mildmay,
William Millet,
Richard Morer,
John Miller,
Thomas Martin,
John Middleton,
Francis Middleton.

N

Dudly, Lord North,
Francis, Lord Norris,
Sir Henry Nevill of Berkshire,
Thomas Nicols,
Christopher Nicols,
William Nicols,
George Newce,
Joseph Newberow,
Christopher Newgate,
Thomas Norincott,
Jonathan Nuttall,
Thomas Norton.

O

William Oxenbridge, Esquire,
Robert Offley,
Francis Oliver.

P

William, Earl of Pembroke,
William, Lord Paget,
John, Lord Petre,
George Percy, Esquire,
Sir Christopher Parkins,
Sir Amias Preston,
Sir Nicholas Parker,
Sir William Poole,
Sir Stephen Powell,
Sir Henry Peyton,
Sir James Perrot,
Sir John Pettus,
Sir Robert Payne,
William Payne,
John Payne,

Edward Parkins,
Edward Parkins's widow,
Aden Perkins,
Thomas Perkin,
Richard Partridge,
William Palmer,
Miles Palmer,
Robert Parkhurst,
Richard Percivall, Esquire,
Richard Poyntell,
George Pretty,
George Pit,
Allen Percy,
Abraham Peirce,
Edmund Peirce,
Phenice Pet,
Thomas Philips,
Henry Philpot,
Mr. George Procter,
Robert Penington,
Peter Peate,
John Prat,
William Powell,
Edmund Peashall,
Captain William Proude,
Henry Price,
Nicholas Pewriffe,
Thomas Pelham,
Richard Piggot,
John Pawlet, Esquire,
Robert Pory,
Richard Paulson.

Q

William Quicke.

R

Sir Robert Rich, now Earl of Warwick,
Sir Thomas Row,
Sir Henry Rainsford,
Sir William Romney,
Sir John Ratcliffe,
Sir Stephen Riddleston,
Sir William Ruffell,
Mr. Edward Rotheram, Alderman,
Robert Rich,
Tedder Roberts,
Henry Robinson,

John Ruffell,
 Richard Rogers,
 Arthur Robinson,
 Robert Robinson,
 Millicent Ramsden,
 John Robinson,
 George Robins,
 Nicholas Rainton,
 Henry Rolffe,
 John Reignolds,
 Elias Roberts,
 Henry Reignolds, Esquire,
 William Roscarrocke, Esquire,
 Humphrey Raymell,
 Richard Robins.

S

Henry, Earl of Southampton,
 Thomas, Earl of Suffolk,
 Edward Seymour, Earl of Hertford,
 Robert, Earl of Salisbury,
 Mary, Countess of Shrewsbury,
 Edmund, Lord Sheffield,
 Robert, Lord Spencer,
 John, Lord Stanhope,
 Sir John Saint John,
 Sir Thomas Smith,
 Sir John Samms,
 Sir John Smith,
 Sir Edwin Sandys,
 Sir Samuel Sandys,
 Sir Stephen Some,
 Sir Ralph Shelton,
 Sir Thomas Stewkley,
 Sir William Saint John,
 Sir William Smith,
 Sir Richard Smith,
 Sir Martin Stutevill,
 Sir Nicholas Salter,
 Doctor Matthew Sutcliffe of Exeter,
 Captain John Smith,
 Thomas Sandys, Esquire,
 Henry Sandys, Esquire,
 George Sandys, Esquire,
 Company of Skinners,
 Company of Salters,
 Company of Stationers,
 John Stokley,
 Richard Staper,

VOL. XIII.

Robert Singleton,
 Thomas Shipton,
 Cleophas Smith,
 Richard Strongtharm,
 Hildebrand Spruson,
 Matthew Scrivener,
 Othowell Smith,
 George Scot,
 Hewet Stapers,
 James Swift,
 Richard Stratford,
 Edmund Smith,
 Robert Smith,
 Matthias Springham,
 Richard Smith,
 Edward Smith,
 Jonathan Smith,
 Humphrey Smith,
 John Smith,
 George Swinhow,
 Joseph Some,
 William Sheckley,
 John Southick,
 Henry Shelley,
 Walter Shelley,
 Richard Snarsborow,
 George Stone,
 Hugh Shepley,
 William Strachey,
 Urion Spencer,
 John Scarpe,
 Thomas Scott,
 William Sharpe,
 Stephen Sparrow,
 Thomas Stokes,
 Richard Shepard,
 Henry Spranger,
 William Stonnard,
 Stephen Sad,
 John Stockley,
 Thomas Stevens,
 Matthew Shepard,
 Thomas Sherwell,
 William Seabright, Esquire,
 Nicholas Sherwell,
 Augustine Steward,
 Thomas Stile,
 Abraham Speckhard,
 Edmund Scot,

T

Francis

Francis Smalman,
 Gregory Sprint, Esquire,
 Thomas Stacey,
 William Sandbatch,
 Augustine Stuard, Esquire.

T

Sir William Twifden,
 Sir William Throckmorton,
 Sir Nicholas Tufton,
 Sir John Trever,
 Sir Thomas Tracy,
 George Thorpe, Esquire,
 Doctor William Turner,
 The Trinity-House,
 Richard Turner,
 John Taverner,
 Daniel Tucker,
 Charles Towler,
 William Tayler,
 Leonard Townson,
 Richard Tomlins,
 Francis Tate, Esquire,
 Andrew Troughton,
 George Tucker,
 Henry Timberlake,
 William Tucker,
 Lewis Tite,
 Robert Thornton.

V

Sir Horatio Vere,
 Sir Walter Vaughan,
 Henry Vincent,
 Richard Venne,
 Christopher Vertue,
 John Vaffell,
 Arthur Venne.

W

Henry Bishop of Worcester,
 Francis West, Esquire,
 Sir Ralph Winwood,
 Sir John Wentworth,
 Sir William Waad,
 Sir Robert Wroth,
 Sir Percival Willoby,
 Sir Charles Wilmott,
 Sir John Wats,

Sir Hugh Worrell,
 Sir Edward Waterhouse,
 Sir Thomas Wilsford,
 Sir Richard Williamson,
 Sir John Wolstenholm,
 Sir Thomas Walsingham,
 Sir Thomas Watson,
 Sir Thomas Wilson,
 Sir John Weld,
 Mrs. Kath. West, now Lady Conway,
 John Wroth, Esquire,
 Captain Maria Winckfield, Esquire,
 Thomas Webb,
 Rice Webb,
 Edward Webb,
 Sands Webb,
 Felix Wilson,
 Thomas White,
 Richard Wiffin,
 William Williamson,
 Humfrey Westwood,
 Hugh Willeston,
 Thomas Wheatley,
 William Wattey,
 William Webster,
 James White,
 Edmund Winne,
 John West,
 John Wright,
 Edward Wooller,
 Thomas Walker,
 John Wooller,
 John Westrow,
 Edward Welch,
 Nathaniel Waad,
 Richard Widowes,
 David Waterhouse, Esquire,
 Captain Owen Winne,
 Randall Wetwood,
 George Wilmer, Esquire,
 Edward Wilkes,
 Leonard White,
 Andrew Willmer,
 Clement Willmer,
 George Walker,
 William Welbie,
 Francis Whistler,
 Thomas Wells,
 Captain Thomas Winne,

John

John Whittingham,
 Thomas Wheeler,
 William Willet,
 Devereux Woogan,
 John Walker,
 Thomas Wood,
 John Willet,
 Nicholas Wheeler,
 Thomas Wale,
 William Willston,
 John Waller,
 William Ward,
 William Willeston,
 John Water,

Thomas Warr, Esquire,
 David Wiffen,
 Garret Weston.

Y

Sir George Yeardley, now Governor of
 Virginia
 William Yong,
 Simon Yeomans.

Z

Edward, Lord Zouch,
 John Zouch, Esquire.

That most generous and most honourable Lord, the Earl of Southampton, being pleased to take upon him the title of treasurer, and Mr. John Farrar his deputy, with such instructions as were necessary, and admonitions to all officers to take heed of extortion, ingrossing commodities, forestalling of markets, especially to have a vigilant care, the familiarity of the savages living amongst them made them not way to betray or surprise them, for the building of guest-houses to relieve the weak in, and that they did wonder in all this time they had made no discoveries, nor knew no more than the very place whereon they did inhabit, nor yet could ever see any return for all this continual charge and trouble, therefore they sent to be added to the council seven gentlemen, namely Mr. Thorp, Captain Nuce, Mr. Tracy, Captain Middleton, Captain Blount, Mr. John Pountas, and Mr. Harwood, with men, ammunition, and all things thought fitting: but they write from Virginia, many of the ships were so pestered with diseased people, and thronged together in their passage, there was much sickness and a great mortality, wherefore they desired rather a few able sufficient men well provided, than great multitudes: and because there were few accidents of note, but private advertisements by letters, we will conclude this year, and proceed to the next.

Collected out of the Council's Letters for Virginia.

The instructions and advertisements for this year were both from England and Virginia, much like the last: only whereas before they had ever a suspicion of Opechankanough, and all the rest of the savages, they had an eye over him more than any; but now they all write so confidently of their assured peace with the savages, there is now no more fear nor danger either of their power or treachery, so that every man planteth himself where he pleaseth, and followeth his business securely. But the time of Sir George Yearley being near expired, the council here made choice of a worthy young gentleman Sir Francis Wyat, to succeed him, whom they forthwith furnished and provided, as they had done his predecessors, with all the necessary instructions all these times had acquainted them for the conversion of the savages, the suppressing of planting tobacco, and planting of corn, not depending continually to be supplied by the savages, but in case of necessity to trade with them, whom long ere this, it hath been promised and expected should have been fed and relieved by the English, not the English by them; and carefully to redress all the complaints of the needless mortality of their people, and by all diligence seek to send something home to satisfy the adventurers, that all this time had only lived upon hopes, grew so weary and discouraged, that it must now be substance that must maintain their proceedings, and not letters, excuses, and promises;
 seeing

feeling they could get so much and such great estates for themselves, as to spend after the rate of one hundred pounds, two, three, four, five, six, seven, eight, nine, ten, nay some two or three thousand pounds yearly, that were not worth so many pence when they went to Virginia, can scarce contain themselves either in diet or apparel, gaming, and all manner of such superfluity, within a less compass than our curious, costly, and consuming gallants here in England, which cannot possibly be there supported, but either by oppressing the commonalty there, or deceiving the generality here, or both.

Extracted out of the Council's Letters for Virginia.

From Virginia, by the relations of the chieftains there, and many I have conferred with, that came from thence hither, I have much admired to hear of the incredible pleasure, profit, and plenty this plantation doth abound in, and yet could never hear of any return but tobacco: but it hath oft amazed me to understand how strangely the savages hath been taught the use of our arms, and employed in hunting and fowling with our fowling-pieces, and our men rooting in the ground about tobacco, like swine; besides, that the savages that do little but continually exercise their bow and arrows, should dwell and lie so familiarly amongst our men that practised little but the spade, being so far asunder, and in such small parties dispersed, and neither fort, exercise of arms used, ordnances mounted, courts of guard, nor any preparation nor provision to prevent a foreign enemy, much more the savages howsoever; for the savages' uncertain conformity I do not wonder, but for their constancy and conversion, I am and ever have been of the opinion of Mr. Jonas Stockam, a minister in Virginia, who even at this time, when all things were so prosperous, and the savages at the point of conversion, against all their governors' and councils' opinions, writ to the council and company in England to this effect:

“ May 28.

“ We that have left our native country to sojourn in a strange land, some idle spectators, who either cowardly dare not, or covetously will not adventure either their purses or persons in so commendable a work; others supporting Atlas of this almost unsupportable burdens as yourselves, without whose assistance this Virginia firmament (in which some) and I hope in short time will shine many more glorious stars, though there be many Italianated and Spaniolized Englishmen envies our prosperity, and by all their ignominious scandals they can devise seek to dishearten what they can, those that are willing to further this glorious enterprize, to such I wish according to the decree of Darius, that whosoever is an enemy to our peace, and seeketh either by getting monopolical patents, or by forging unjust tales to hinder our welfare, that his house were pulled down, and a pair of gallows made of the wood, and he hanged on them in the place.

“ As for those lazy servants, who had rather stand all day idle than work, though but an hour in this vineyard, and spend their substance riotously, than cast the superfluity of their wealth into your treasury, I leave them as they are to the Eternal Judge of the world. But you right worthy, that hath adventured so freely, I will not examine, if it were for the glory of God, or your desire of gain, which it may be you expect should flow unto you with a full tide, for the conversion of the savages: I wonder you use not the means, I confess you say well to have them converted by fair means, but they scorn to acknowledge it; as for the gifts bestowed on them they devour them, and so they would the givers if they could; and though many have endeavoured by all the means they could by kindness to convert them, they find nothing from them but deri-

sion and ridiculous answers. We have sent boys amongst them to learn their language, but they return worse than they went; but I am no statesman, nor love I to meddle with any thing but my books: but I can find no probability by this course to draw them to goodness; and I am persuaded if Mars and Minerva go hand in hand, they will effect more good in an hour than those verbal Mercurians in their lives; and till their priests and ancients have their throats cut, there is no hope to bring them to conversion."

The Government of Sir Francis Wyat.

About October arrived Sir Francis Wyatt, with Mr. George Sands, appointed treasurer, Mr. Davison secretary, Doctor Pot the physician, and Mr. Cloyburne the surgeon; but much provision was very badly conditioned, nay, the hogs would not eat that corn they brought, which was a great cause of their sickness and mortality, and whatsoever is said against the Virginia corn, they find it doth better nourish than any provision is sent thither; the sailors still they complain are much to blame for embezzling the provisions sent to private men, killing of swine, and disorderly trucking; for which some order would be taken.

In them nine ships that went with Sir Francis Wyat, not one passenger died; at his arrival he sent Mr. Thorpe to Opechankanough, whom he found much satisfied with his coming, to confirm their leagues as he had done his predecessors, and so contented his people should co-inhabit amongst them, and he found more motions of religion in him than could be imagined: every man betaking himself to his quarter, it was ordered, that for every head they should plant but one thousand plants of tobacco, and upon each plant nine leaves, which will be about one hundred weight, the corn being appointed but at two shillings and sixpence the bushel, required such labour, it caused most men to neglect it, and depend upon trade; where were it rated at ten shillings the bushel, every man would endeavour to have plenty to sell to the new comers, or any that wanted, and seldom any is transported from England, but it standeth in as much, besides the hazard and other necessities, the ships might transport of that burden. The 22d of November arrived Mr. Gookin out of Ireland, with fifty men of his own, and thirty passengers, exceedingly well furnished with all sorts of provision and cattle, and planted himself at Nupors-newes: the cotton trees in a year grew so thick as one's arm, and so high as a man: here any thing that is planted doth prosper so well as in no place better. For the mortality of the people accuse not the place, for of the old planters and the families scarce one of twenty miscarries, only the want of necessities are the occasions of those diseases. And so we will conclude this year with the shipping and numbers sent.

Out of the Council's Letters from Virginia.

This year was sent one-and-twenty sail of ships that employed more than four hundred sailors, and thirteen hundred men, women and children of divers faculties, with fourscore cattle. The Tiger fell in the Turk's hands, yet safely escaped, and by the return of their letters from thence, the company is assured there can be no fitter places of mines, wood, and water for iron than there; and the Frenchmen affirm no country is more proper for vines, olives, sike, rice, and salt, &c., of which the next year they promise a good quantity.

Gifts.

The gentlemen and mariners that came in the Royal James from the East Indies, gave towards the building of a free-school seventy pounds eight shillings and sixpence ; and an unknown person to further it, sent thirty pounds ; and another in like manner five-and-twenty pounds ; another, refusing to be made known, gave forty shillings yearly for a sermon before the Virginia Company ; also another, that would not be known, sent for the college, at Henrico, many excellent good religious books, worth ten pounds, and a most curious map of all that coast of America. Mr. Thomas Bar-gave their preacher there, deceased, gave a library valued at one hundred marks ; and the inhabitants hath made a contribution of one thousand and five hundred pounds, to build a house for the entertaining of strangers. This year also there was much suing for patents for plantations, who promised to transport such great multitudes of people ; there was much disputing concerning those divisions, as though the whole land had been too little for them ; six-and-twenty obtained their desires, but as yet not past six hath sent thither a man ; notwithstanding many of them would have more, and are not well contented, whom I would entreat, and all other wranglers, to peruse this saying of honest Claudius.

See'st not the world of Nature's work, the fairest well, I wot,
How it, itself together ties, as in a true-love's knot,
Nor see'st how th' elements are combin'd, maintain one constant plea,
How midst of heaven contents the Sun, and shore contains the sea ;
And how the air both compasseth, and carrieth still earth's frame,
Yet neither pressing burdens it, nor parting leaves the same.

The Observations of Mr. John Pory, Secretary of Virginia, in his Travels.

HAVING but ten men, meanly provided, to plant the secretary's land on the eastern shore near Acomack, Captain Wilcock's plantation, the better to secure and assist each other ; Sir George Yearley intending to visit Smith's Isles, fell so sick that he could not, so that he sent me with Estinien Moll, a Frenchman, to find a convenient place to make salt in. Not long after, Namenacus, the King of Pawtuxunt, came to us to seek for Thomas Savage, our interpreter : thus insinuating himself, he led us into a thicket, where all sitting down, he shewed us his naked breast ; asking if we saw any deformity upon it ; we told him, No. " No more," said he, " is the inside, but as sincere and pure, therefore come freely to my country, and welcome ;" which we promised we would within six weeks after. Having taken a muster of the company's tenants, I went to Smith's Isles, where was our salt-house ; not far off we found a more convenient place, and so returned to James Town.

Being furnished the second time, we arrived at Aquochanock, and conferred with Kiptopeke their King. Passing Russel's Isle and Onaucoke, we arrived at Pawtuxunt : the description of those places you may read in Captain Smith's discoveries, therefore needless to be writ again. But here arriving at Attoughcomoco, the habitation of Namenacus, and Wamanato, his brother, long we staid not ere they came on board us with a brass kettle, as bright without as within, full of boiled oysters. Strict order was given none should offend us, so that the next day I went with the two Kings a hunting, to discover what I could in their confines. Wamanato brought me first to his house, where he shewed me his wife and children, and many corn-fields ; and being two miles within the woods a hunting, as the younger conducted me forth, so the elder brought me home,

and used me as kindly as he could, after their manner. The next day he presented me twelve beaver skins and a canoe, which I requited with such things to his content, that he promised to keep them whilst he lived, and bury them with him being dead. He much wondered at our bible, but much more to hear it was the law of our God, and the first chapter of Genesis expounded of Adam and Eve, and simple marriage; to which he replied, he was like Adam in one thing, for he never had but one wife at once; but he, as all the rest, seemed more willing of other discourses they better understood. The next day the two Kings, with their people, came on board us, but brought us nothing according to promise, so that Ensign Savage challenged Namencus the breach of three promises, viz. not giving him a boy, nor corn, though they had plenty, nor Montapassa fugitive, called Robert Marcum, that had lived five years amongst those northerly nations, which he cunningly answered by excuses. Womamoto, it seems, was guilty of this falsehood, because he staid alone when the rest were gone. I asked him if he desired to be great and rich; he answered, they were things all men aspired unto; which I told him he should be, if he would follow my counsel; so he gave me two tokens, which being returned by a messenger, should suffice to make him confident the messenger could not abuse us.

Some things being stolen from us, he took such order that they were presently restored, then we interchanged presents: in all things he much admired our discretions, and gave us a guide that he called brother, to conduct us up the river: by the way we met with divers that still told us of Marcum; and though it was in October, we found the country very hot, and their corn gathered before ours at James Town. The next day we went to Paccamaganant, and they directed us to Assacomoco, where their King Cassatowap, had an old quarrel with Ensign Savage, but now seeming reconciled, went with us, with another Werowance towards Mattapanient, where they persuaded us ashore upon the point of a thicket; but supposing it some treachery, we returned to our boat: far we had not gone from the shore, but a multitude of savages sallied out of the wood, with all the ill words and signs of hostility they could. When we saw plainly their bad intent, we set the two Werowances at liberty, that all this while had lain in the cabin, as not taking any notice of their villany, because we would convert them by courtesy. Leaving them as we found them, very civil and subtle, we returned the same way we came, to the laughing Kings on the eastern shore, who told us plainly, Namanicus would also have allured him into his country, under colour of trade, to cut his throat. He told us also Opechancanough had employed Onianimo to kill Savage, because he brought the trade from him to the eastern shore, and some disgrace he had done his son, and some thirteen of his people before one hundred of those Easterlings in rescuing Thomas Graves, whom they would have slain, where he and three more did challenge the thirteen Pamaunkes to fight, but they durst not, so that all those Easterlings so derided them, that they came there no more.

This Thomas Savage, it is sixteen years since he went to Virginia, being a boy, he was left with Powhatan, for Namontacke to learn the language, and as this author affirmeth, with much honesty and good success, hath served the public, without any public recompence, yet had an arrow shot through his body in their service. This laughing King at Accomack, tells us the land is not two days journey over in the broadest place; but in some places a man may go in half a day, betwixt the bay and the main ocean, where inhabit many people, so that by the narrowness of the land there is not many deer, but most abundance of fish and fowl. Kiptope his brother, rules as his lieutenant, who seeing his younger brother more affected by the people than himself, freely resigned him the moiety of his country, applying himself only to husbandry and hunting,

hunting, yet nothing neglected in his degree, nor is he careless of any thing concerns the state, but as a vigilant and faithful counsellor, as he is an affectionate brother, bearing the greater burden in government, though the lesser honour, where clean contrary, they on the western shore, the younger bears the charge, and the elder the dignity. Those are the best husbands of any savages we know; for they provide corn to serve them all the year, yet spare; and the other not for half the year, yet want. They are the most civil and tractable people we have met with, and by little sticks will keep as just an account of their promises as by a tally. In their marriages they observe a large distance, as well in affinity as consanguinity; nor do they use that devilish custom in making black boys. There may be on this shore about two thousand people; they on the west would invade them, but that they want boats to cross the bay, and so would divers other nations, where they not protected by us. A few of the western renagadoes had conspired against the laughing King; but fearing their treason was discovered, fled to Smith's Isles, where they made a massacre of deer and hogs; and thence to Rickahake, betwixt Cissapeack and Nansamund, where they now are seated under the command of Itoyatin, and so I returned to James Town, where I found the government rendered to Sir Francis Wyat. In February also he travelled to the south river Chawonock, some sixty miles over land, which he found to be a very fruitful and pleasant country, yielding two harvests in a year, and found much of the silk-grass formerly spoken of, was kindly used by the people, and so returned.

Captain Each sent to build a Fort to secure the Country.

IT was no small content to all the adventurers to hear of the safe arrival of all those ships and companies, which was thought sufficient to have made a plantation of themselves; and again to second them was sent Captain Each, in the Abigail, a ship of three or four hundred tons, who hath undertaken to make a block-house amongst the oyster-banks that shall secure the river. The furnishing him with instruments cost three hundred pounds; but the whole charge, and the ship's return, will be near two thousand pounds. In her went Captain Barwicke, with five-and-twenty men, for the building ships and boats, and not other way to be employed; and also a selected number to build the East India school; but as yet from Virginia little returns but private men's tobacco, and fair promises of plenty of iron, silk, wine, and many other good and rich commodities, besides the speedy conversion of the savages, that at first were much discouraged from living amongst them, when they were debarred the use of their pieces; therefore it was disputed as a matter of state, whether such as would live amongst them should use them or not, as a bait to allure them, or at least such as should be called to the knowledge of Christ. But because it was a great trouble for all causes to be brought to James Town for a trial, courts were appointed in convenient places to relieve them; but as they can make no laws in Virginia till they be ratified here, so they think it but reason none should be enacted here without their consents, because they only feel them, and must live under them. Still they complain for want of corn but what must be had by trade, and how unwilling any officer when he leaveth his place is to make good his number of men to his successor; but many of them during their times to help themselves undoes the company: for the servants you allow them, or such as they hire, they plant on their private lands, not upon that belongeth to their office, which crop always exceeds yours, besides those which are your tenants to halves, are forced to row them up and down, whereby both you and they lose more than half. Nor are those officers the ablest or best deserving, but make their experience upon the
company's

company's cost, and your land lies unmanured to any purpose, and will yield as little profit to your next new officers.

The Massacre upon the 22d of March.

THE prologue to this tragedy is supposed was occasioned by Nemattanow, otherwise called Jack of the Feather, because he commonly was most strangely adorned with them; and for his courage and policy was accounted amongst the savages their chief captain, and immortal from any hurt could be done him by the English. This captain coming to one Morgan's house, knowing he had many commodities that he desired, persuaded Morgan to go with him to Pamaunke to truck; but the savage murdered him by the way, and after two or three days returned again to Morgan's house, where he found two youths, his servants, who asked for their master. Jack replied directly, he was dead. The boys suspecting as it was, by seeing him wear his cap, would have had him to Mr. Thorp; but Jack so moved their patience, they shot him; so he fell to the ground; put him in a boat to have him before the governor, then seven or eight miles from them; but by the way Jack finding the pangs of death upon him, desired of the boys two things; the one was, that they would not make it known he was slain with a bullet, the other, to bury him amongst the English. At the loss of this savage, Opechankanough much grieved and repined, with great threats of revenge; but the English returned him such terrible answers, that he cunningly dissembled his intent with the greatest signs he could of love and peace, yet within fourteen days after he acted what followeth.

Sir Francis Wyat, at his arrival, was advertised; he found the country settled in such a firm peace, as most men there thought sure and inviolable, not only in regard of their promises, but of necessity. The poor weak savages being every way bettered by us, and safely sheltered and defended, whereby we might freely follow our business; and such was the conceit of this conceited peace, as that there was seldom or never a sword, and seldomer a piece, except for a deer or fowl, by which assurances the most plantations were placed stragglingly and scatteringly, as a choice vein of rich ground invited them, and further from neighbours the better. Their houses generally open to the savages, who were always friendly, fed at their tables, and lodged in their bed-chambers, which made their way plain to effect the intents, and the conversion of the savages, as they supposed.

Having occasion to send to Opechankanough about the middle of March, he used the messenger well, and told him he held the peace so firm, the sky should fall or he dissolved it; yet such was the treachery of those people, when they had contrived our destruction, even but two days before the massacre, they guided our men with much kindness through the woods; and one Brown, that lived among them, to learn the language, they sent home to his master; yea, they borrowed our boats to transport themselves over the river, to consult on the devilish murder that ensued, and of our utter extirpation, which God of his infinite mercy (by the means of one of themselves converted to Christianity) prevented, and as well on the Friday morning that fatal day, being the 22d of March, as also in the evening before, as at other times they came unarmed into our houses, with deer, turkies, fish, fruits, and other provisions to sell us; yea, in some places sat down at breakfast with our people, whom immediately with their own tools they slew most barbarously, not sparing either age or sex, man, woman, or child; so sudden in their execution, that few or none discerned the weapon or blow that brought them to destruction: in which manner also they slew many of

our people at several works in the fields, well knowing in what places and quarters each of our men were, in regard of their familiarity with us, for the effecting that great master-piece of work, their conversion; and by this means fell that fatal morning, under the bloody and barbarous hands of that perfidious and inhuman people, three hundred and forty-seven men, women, and children, most by their own weapons; and not being content with their lives, they fell again upon the dead bodies, making as well as they could a fresh murder, defacing, dragging, and mangling their dead carcases into many pieces, and carrying some parts away in derision, with base and brutish triumph.

Neither yet did these beasts spare those amongst the rest well known unto them, from whom they had daily received many benefits, but spitefully also massacred them without any remorse or pity, being in this more fell than lions and dragons, as histories record, which have preserved their benefactors; such is the force of good deeds, though done to cruel beasts, to take humanity upon them; but these miscreants put on a more unnatural brutishness than beasts, as by those instances may appear.

That worthy religious gentleman, Mr. George Thorp, deputy to the college lands, sometime one of his Majesty's pensioners, and in command one of the principal of Virginia, did so truly affect their conversion, that whosoever under him did them the least displeasure, were punished severely. He thought nothing too dear for them; he never denied them any thing, insomuch that when they complained that our mastiffs did fear them, he, to content them in all things, caused some of them to be killed in their presence, to the great displeasure of the owners, and would have had all the rest gelt, to make them the milder, might he have had his will. The King dwelling but in a cottage, he built him a fair house after the English fashion, in which he took such pleasure, especially in the lock and key, which he so admired, as locking and unlocking his door a hundred times a day, he thought no device in the world comparable to it.

Thus insinuating himself into this King's favour for his religious purpose, he conferred oft with him about religion, as many others in this former discourse had done: and this Pagan confessed to him as he did to them, our God was better than theirs, and seemed to be much pleased with that discourse, and of his company, and to requite all those courtesies; yet this viperous brood did, as the sequel shewed, not only murder him, but with such spight and scorn abused his dead corps, as is unfitting to be heard with civil ears. One thing I cannot omit, that when this good gentleman upon his fatal hour, was warned by his man, who perceiving some treachery intended by those hell-hounds, to look to himself, and withal ran away for fear he should be apprehended, and so saved his own life; yet his master out of his good meaning, was so void of suspicion and full of confidence, they had slain him, or he could or would believe they would hurt him. Captain Nathaniel Powell, one of the first planters, a valiant soldier, and not any in the country better known amongst them; yet such was the error of an over-conceited power and prosperity, and their simplicity, they not only slew him and his family, but butcher-like haggled their bodies, and cut off his head, to express their uttermost height of cruelty. Another of the old company of Captain Smith, called Nathaniel Cause, being cruelly wounded, and the savages about him, with an axe did cleave one of their heads, whereby the rest fled and he escaped: for they hurt not any that did either fight or stand upon their guard. In one place where there was but two men that had warning of it, they defended the house against sixty or more that assaulted it. Mr. Baldwin, at Waraskoyack, his wife being so wounded, she lay for dead, yet by his oft discharging of his piece, saved her, his house, himself, and

divers others. At the same time they came to one Mr. Harrison's house, near half a mile from Baldwin's, where was Mr. Thomas Hamer with six men, and eighteen or nineteen women and children. Here the savages, with many presents and fair persuasions, feigned they came for Captain Ralfe Hamer to go to their King, then hunting in the woods; presently they sent to him, but he not coming as they expected, set fire to a tobacco-house, and then came to tell them in the dwelling-house of it to quench it; all the men ran towards it, but Mr. Hamer not suspecting any thing, whom the savages pursued, shot them full of arrows, then beat out their brains. Hamer having finished a letter he was writing, followed after to see what was the matter, but quickly they shot an arrow in his back, which caused him to return and barricade up the doors, whereupon the savages set fire on the house. Harrison's boy finding his master's piece loaded, discharged it at random, at which bare report the savages all fled, Baldwin still discharging his piece, and Mr. Hamer with two-and-twenty persons thereby got to his house, leaving their own burning. In like manner they had fired Lieutenant Basse's house, with all the rest thereabout, slain the people, and so left that plantation.

Captain Hamer all this while not knowing any thing, coming to his brother that had sent for him to go hunt with the King, meeting the savages chasing some, yet escaped, retired to his new house then building, from whence he came; there only with spades, axes, and brick-bats, he defended himself and his company till the savages departed. Not long after the master from the ship had sent six musketeers, with which he recovered their merchants store-house, where he armed ten more, and so with thirty more unarmed workmen, found his brother and the rest at Baldwin's: now seeing all they had was burnt and consumed, they repaired to James Town with their best expedition; yet not far from Martin's hundred, where seventy-three were slain, was a little house and a small family, that heard not of any of this till two days after.

All those and many others whom they have as maliciously murdered, sought the good of those poor brutes, that thus despising God's mercies, must needs now as miscreants be corrected by justice: to which leaving them, I will knit together the thread of this discourse. At the time of the massacre, there were three or four ships in James river, and one in the next, and daily more to come in, as there did within fourteen days after, one of which they endeavoured to have surprised: yet were the hearts of the English ever stupid, and averted from believing any thing might weaken their hopes, to win them by kind usage to Christianity. But divers write from thence, that Almighty God hath his great work in this tragedy, and will thereout draw honour and glory to his name, and a more flourishing estate and safety to themselves, and with more speed to convert the savage children to himself, since he so miraculously hath preserved the English, there being yet, God be praised, eleven parts of twelve remaining, whose careless neglect of their own safeties seem to have been the greatest cause of their destruction: yet you see, God, by a converted savage that disclosed the plot, saved the rest, and the pinnace then in Pamaunkes river, whereof (say they) though our sins made us unworthy of so glorious a conversion, yet his infinite wisdom can nevertheless bring it to pass, and in good time, by such means as we think most unlikely: for in the delivery of them that survive, no man's particular carefulness saved one person, but the mere goodness of God himself, freely and miraculously preserving whom he pleased.

The letters of Mr. George Sands, a worthy gentleman, and many others besides them returned, brought us this unwelcome news, that hath been heard at large in public court, that the Indians and they lived as one nation, yet, by a general combina-

tion, in one day plotted to subvert the whole colony, and at one instant, though our several plantations were one hundred and forty miles up on river on both sides.

But for the better understanding of all things, you must remember these wild naked natives live not in great numbers together, but dispersed, commonly in thirty, forty, fifty, or sixty in a company. Some places have two hundred, few places more, but many less; yet they had all warning given them one from another in all their habitations, though far asunder, to meet at the day and hour appointed for our destruction, at all our several plantations, some directed to one place, some to another, all to be done at the time appointed, which they did accordingly: some entering their houses under colour of trading, so took their advantage; others drawing us abroad under fair pretences, and the rest suddenly falling upon those that were at their labours.

Six of the council suffered under this treason, and the slaughter had been universal, if God had not put it into the heart of an Indian, who lying in the house of one Pace, was urged by another Indian his brother, that lay with him the night before, to kill Pace, as he should do Perry which was his friend, being so commanded from their King; telling him also how the next day the execution should be finished: Perry's Indian presently arose and reveals it to Pace, that used him as his son; and thus those that escaped were saved by this one converted infidel. And though three hundred and forty seven were slain, yet thousands of ours were by the means of this alone thus preserved, for which God's name be praised for ever and ever.

Pace upon this, securing his house, before day rowed to James Town, and told the governor of it, whereby they were prevented, and at such other plantations as possibly intelligence could be given; and where they saw us upon our guard, at the sight of a piece they ran away; but the rest were most slain, their houses burnt, such arms and ammunition as they found they took away, and some cattle also they destroyed. Since we find Opechankanough the last year had practised with a King on the eastern shore, to furnish him with a kind of poison, which only grows in his country, to poison us. But of this bloody act never grief and shame possessed any people more than themselves, to be thus butchered by so naked and cowardly a people, who dare not stand the presenting of a staff in manner of a piece, nor an uncharged piece in the hands of a woman. (But I must tell those authors, though some might be thus cowardly, there were many of them had better spirits.)

Thus have you heard the particulars of this massacre, which in those respects some say will be good for the plantation, because now we have just cause to destroy them by all means possible; but I think it had been much better it had never happened, for they have given us an hundred times as just occasions long ago to subject them, (and I wonder I can hear of none but Mr. Stockam and Mr. Whitaker of my opinion.) Moreover, where before we were troubled in clearing the ground of great timber, which was to them of small use; now we may take their own plain fields and habitations, which are the pleasantest places in the country. Besides, the deer, turkies, and other beasts and fowls will exceedingly increase if we beat the savages out of the country, for at all times of the year they never spare male nor female, old nor young, eggs nor birds, fat nor lean, in season or out of season, with them all is one. The like they did in our swine and goats, for they have used to kill eight in ten more than we, or else the wood would most plentifully abound with victuals; besides, it is more easy to civilize them by conquest than fair means; for the one may be made at once, but their civilizing will require a long time and much industry. The manner how to suppress them is so often related and approved, I omit it here; and you have twenty examples

of the Spaniards how they got the West Indies, and forced the treacherous and rebellious infidels to do all manner of drudgery work and slavery for them, themselves living like soldiers upon the fruits of their labours. This will make us more circumspect, and be an example to posterity : (but I say, this might as well have been put in practice sixteen years ago as now.)

Thus upon this anvil shall we now beat ourselves an armour of proof hereafter to defend us against such incursions, and ever hereafter make us more circumspect : but to help to repair this loss, besides his Majesty's bounty in arms, he gave the company out of the Tower, and divers other honourable persons have renewed their adventures, we must not omit the honourable city of London, to whose endless praise we may speak it, are now setting forward one hundred persons, and divers others at their own costs are repairing ; and all good men do think never the worse of the business for all these disasters.

What growing state was there ever in the world which had not the like ? Rome grew by oppression, and rose upon the back of her enemies : and the Spaniards have had many of those counterbuffs more than we. Columbus upon his return from the West Indies into Spain, having left his people with the Indians, in peace and promise of good usage amongst them, at his return back found not one of them living, but all treacherously slain by the savages. After this again, when the Spanish colonies were increased to great numbers, the Indians from whom the Spaniards for trucking stuff used to have all their corn, generally conspired together to plant no more at all, intending thereby to famish them, themselves living in the meantime upon cassava, a root to make bread, only then known to themselves. This plot of theirs by the Spaniards' oversight, that foolishly depended upon strangers for their bread, took such effect, and brought them to such misery by the rage of famine, that they spared no unclean nor loathsome beast, no not the poisonous and hideous serpents, but eat them up also, devouring one death to save them from another ; and by this means their whole colony well near forfeited, sickened and died miserably ; and when they had again recovered this loss, by their incontinency an infinite number of them died on the Indian disease, we call the French pox, which at first being a strange and an unknown malady, was deadly upon whomsoever it lighted : then had they a little flea called nigua, which got between the skin and the flesh before they were aware, and there bred and multiplied, making swellings and putrefactions, to the decay and loss of many of their bodily members.

Again, divers times they were near undone by their ambition, faction, and malice of the commanders. Columbus, to whom they were also much beholden, was sent with his brother in chains into Spain, and some other great commanders killed and murdered one another. Pizzaro was killed by Almagro's son, and him Vasco beheaded, which Vasco was taken by Blasco, and Blasco was likewise taken by Pizzaro's brother : and thus by their covetous and spiteful quarrels, they were ever shaking the main pillars of their commonwealth. These and many more mischiefs and calamities happened them, more than ever did to us, and at one time being even at the last gasp, had two ships not arrived with supplies as they did, they were so disheartened, they were leaving the country : yet we see for all those miseries they have attained to their ends at last, as is manifest to all the world, both with honour, power, and wealth : and whereas before few could be hired to go to inhabit there, now with great suit they must obtain it ; but where there was no honesty, nor equity, nor sanctity, nor verity, nor piety, nor good civility in such a country, certainly there can be no stability.

Therefore

Therefore let us not be discouraged, but rather animated by those conclusions, seeing we are so well assured of the goodness and commodities may be had in Virginia; nor is it to be much doubted there is any want of mines of most sorts, no not of the richest, as is well known to some yet living that can make it manifest when time shall serve: and yet to think that gold and silver mines are in a country otherwise most rich and fruitful, or the greatest wealth in a plantation, is but a popular error, as is that opinion likewise, that the gold and silver is now the greatest wealth of the West Indies at this present. True it is indeed, that in the first conquest the Spaniards got great and mighty store of treasure from the natives, which they in long space had heaped together, and in those times the Indians shewed them entire and rich mines, which now by the relations of them that have been there, are exceedingly wasted, so that now the charge of getting those metals is grown excessive, besides the consuming the lives of many by their pestilent smoke and vapours in digging and refining them, so that all things considered, the clear gains of those metals, the King's part defrayed, to the adventurers is but small, and nothing near so much as vulgarly is imagined; and were it not for other rich commodities there that enrich them, those of the contraction-house were never able to subsist by the mines only, for the greatest part of their commodities are partly natural and partly transported from other parts of the world, and planted in the West Indies, as in their mighty wealth of sugar canes, being first transported from the Canaries; and in ginger and other things brought out of the East Indies, in their cochineal, indigos, cotton, and their infinite store of hides, quicksilver, allum, woad, Brazil woods, dyes, paints, tobacco, gums, balms, oils, medicinals, and perfumes, sarsaparilla, and many other physical drugs; these are the means whereby they raise that mighty charge of drawing out their gold and silver to the great and clear revenue of their King. Now seeing the most of those commodities, or as useful, may be had in Virginia by the same means, as I have formerly said; let us with all speed take the priority of time, where also may be had the priority of place, in choosing the best seats of the country, which now by vanquishing the savages, is like to offer a more fair and ample choice of fruitful habitations than hitherto our gentleness and fair comportments could attain unto.

The Numbers that were slain in those several Plantations.

1	At Captain Berkley's plantation, himself and 21 others, seated at the Falling-Crick, 66 miles from James City	-	-	-	-	22
2	Mr. Thomas Sheffield's plantation, some 3 miles from the Falling-Crick, himself and 12 others	-	-	-	-	13
3	At Henrico Island, about 2 miles from Sheffield's plantation	-	-	-	-	6
4	Slain of the College people, 20 miles from Henrico	-	-	-	-	17
5	At Charles City, and of Captain Smith's men	-	-	-	-	5
6	At the next adjoining plantation	-	-	-	-	8
7	At William Farrar's house	-	-	-	-	10
8	At Brickley Hundred, 50 miles from Charles City, Mr. Thorp and	-	-	-	-	10
9	At Westover, a mile from Brickley	-	-	-	-	2
10	At Mr. John West's plantation	-	-	-	-	2
11	At Captain Nathaniel West's plantation	-	-	-	-	2
12	At Lieutenant Gibbs's plantation	-	-	-	-	12
13	At Richard Owen's house, himself and	-	-	-	-	6
						14 At

14	At Mr. Owen Macar's house, himself and	-	-	-	3
15	At Martin's Hundred, 7 miles from James City	-	-	-	73
16	At another place	-	-	-	7
17	At Edward Bonit's plantation	-	-	-	50
18	At Mr. Waters's house, himself and	-	-	-	4
19	At Apamatuck's river, at Mr. Pierce's plantation, 5 miles from the College	-	-	-	4
20	At Mr. Macock's dividend, Captain Samuel Macock, and	-	-	-	4
21	At Flowerda Hundred, Sir George Yearley's plantation	-	-	-	6
22	On the other side opposite to it	-	-	-	7
23	At Mr. Swinbow's house, himself and	-	-	-	7
24	At Mr. William Bickar's house, himself and	-	-	-	4
25	At Weanock, of Sir George Yearley's people	-	-	-	21
26	At Powel Brooke, Captain Nathaniel Powell, and	-	-	-	12
27	At Southampton Hundred	-	-	-	5
28	At Martin Brandon's Hundred	-	-	-	7
29	At Captain Henry Spilman's house	-	-	-	2
30	At Ensign Spence's house	-	-	-	5
31	At Mr. Thomas Perse's house by Mulbery Isle, himself and	-	-	-	4

The whole number 347.

Men in this taking bittered with affliction,
Better attend, and mind, and mark religion,
For then true voices issue from their hearts,
Then speak they what they think in inmost parts,
The truth remains, they cast off feigned arts.

This lamentable and so unexpected a disaster caused them all believe the opinion of Mr. Stockam, and drove them all to their wits end: it was twenty or thirty days ere they could resolve what to do, but at last it was concluded, all the petty plantations should be abandoned, and drawn only to make good five or six places, where all their labours now for the most part must redound to the Lords of those lands where they were resident. Now for want of boats, it was impossible upon such a sudden to bring also their cattle and many other things, which with much time, charge, and labour they had then in possession with them; all which for the most part at their departure was burnt, ruined, and destroyed by the savages. Only Mr. Gookins at Nuports-newes would not obey the commander's command in that, though he had scarce five and thirty of all sorts with him, yet he thought himself sufficient against what could happen, and so did to his great credit and the content of his adventurers. Mr. Samuel Jorden gathered together but a few of the stragglers about him at Beggars-bush, where he fortified and lived in despite of the enemy. Nay, Mrs. Proctor, a proper modest civil gentlewoman did the like, till perforce the English officers forced her and all them with her to go with them, or they would fire her house themselves, as the savages did when they were gone, in whose despite they had kept it, and what they had a month or three weeks after the massacre; which was to their hearts a grief beyond comparison, to lose all they had in that manner, only to secure others pleasures. Now here in England it was thought all those remainders might presently have been reduced into fifties or hundreds in places most convenient with what they had, having such strong houses as they reported they had, which with small labour might have been made invincible castles against all the savages in the land, and then presently raised a company, as a running army, to torment the barbarous, and secure the rest, and so have had all that country.

country betwixt the rivers of Powhatan and Pamaunke to range and sustain them; especially all the territories of Kecoughtan, Chiskact and Paspahege, from Ozenies to that branch of Pamaunke, coming from Youghtanund, which strait of land is not past 4 or 5 miles, to have made a peninsula much bigger than the Summer Isles, environed with the broadest parts of those two main rivers, which for plenty of such things as Virginia affords is not to be exceeded, and were it well manured, more than sufficient for ten thousand men. This, were it well understood, cannot but be thought better than to bring five or six hundred to lodge and live on that, which before would not well receive and maintain a hundred, planting little or nothing, but spend that they have upon hopes out of England, one evil begetting another, till the disease is past cure: therefore it is impossible but such courses must produce most fearful miseries and extreme extremities; if it prove otherwise, I should be exceeding glad. I confess I am somewhat too bold to censure other men's actions being not present, but they have done as much of me; yea, many here in England that were never there, and also many there that know little more than their plantations, but as they are informed; and this doth touch the glory of God, the honour of my country, and the public good so much, for which there hath been so many fair pretences, that I hope none will be angry for speaking my opinion, seeing the old Proverb doth allow losers leave to speak; and Du Bartas saith,

E'en as the wind the angry ocean moves,
Wave hunteth wave, and billow billow shoves;
So do all nations jostle each the other,
And so one people do pursue another;
And scarce a second hath the first unhous'd,
Before a third him thence again have rous'd.

Amongst the multitude of these several relations, it appears Captain Nuse seeing many of the difficulties to ensue, caused as much corn to be planted as he could at Elizabeth's City, and though some destroyed that they had set, fearing it would serve the savages for ambuscadoes, trusting to relief by trade, or from England, which hath ever been one cause of our miseries, for from England we have not had much, and for trading, every one hath not ships, shalops, interpreters, men, and provisions to perform it, and those that have, use them only for their own private gain, not the public good, so that our beginning this year doth cause many to distrust the event of the next. Here we will leave Captain Nuse for a while, lamenting the death of Captain Norton, a valiant, industrious gentleman, adorned with many good qualities, besides physic and surgery, which for the public good, he freely imparted to all gratis, but most bountifully to the poor; and let us speak a little of Captain Croshaw amongst the midst of those broils in the river of Patawomeke.

Being in a small bark called the Elizabeth, under the command of Captain Spilman, at Cekacawone, a savage stole aboard them, and told them of the massacre, and that Opechankanough had plotted with his King and country to betray them also, which they refused, but them of Wighcocomoco at the mouth of the river had undertaken it; upon this Spilman went thither; but the savages seeing his men so vigilant and well armed, they suspected themselves discovered, and to colour their guilt, the better to delude him, so contented his desire in trade, his pinnace was near freighted; but seeing no more to be had, Croshaw went to Patawomek, where he intended to stay and trade for himself, by reason of the long acquaintance he had with this King that so earnestly entreated him now to be his friend, his countenancer, his captain, and director against the Pazaticans, the Nacotchtanks, and Moyaons, his mortal enemies. Of this opportunity

tunity Croshaw was glad, as well to satisfy his own desire in some other purpose he had, as to keep the King as an opposite to Opechancanough, and adhere him unto us, or at least make him an instrument against our enemies; so only Elis Hill stayed with him, and the pinnace returned to Elizabeth City; here shall they rest also a little, till we see how this news was entertained in England.

It was no small grief to the council and company, to understand of such a supposed impossible loss, as that so many should fall by the hands of men so contemptible; and yet having such warnings, especially by the death of Nemattanow, whom the savages did think was shot-free, as he had persuaded them, having so long escaped so many dangers without any hurt. But now to leap out of this labyrinth of melancholy, all this did not so discourage the noble adventurers, nor divers others still to undertake new several plantations, but that divers ships were dispatched away, for their supplies and assistance thought sufficient. Yet Captain Smith did intreat and move them to put in practice his old offer, seeing now it was time to use both it and him, how slenderly heretofore both had been regarded, and because it is not impertinent to the business, it is not much amiss to remember what it was.

The Project and Offer of Captain John Smith, to the Right Honourable and Right Worshipful Company Virginia.

IF you please I may be transported with a hundred soldiers and thirty sailors by the next Michaelmas, with victuals, ammunition, and such necessary provision, by God's assistance, we would endeavour to enforce the savages to leave their country, or bring them in that fear and subjection that every man should follow their business securely, whereas now half their times and labours are spent in watching and warding, only to defend, but altogether unable to suppress the savages, because every man now being for himself will be unwilling to be drawn from their particular labours, to be made as pack-horses for all the rest, without any certainty of some better reward and preferment than I can understand any there can or will yet give them.

These I would employ only in ranging the countries, and tormenting the savages, and that they should be as a running army till this were effected, and then settle themselves in some such convenient place, that should ever remain a garrison of that strength, ready upon any occasion against the savages or any other for the defence of the country, and to see all the English well armed, and instruct them their use. But I would have a bark of one hundred tons, and means to build six or seven shallops to transport them where there should be occasion.

Towards the charge, because it is for the general good, and what by the massacre and other accidents, Virginia is disparaged, and many men and their purses much discouraged, however a great many do hasten to go, thinking to be next heirs to all the former losses, I fear they will not find all things as they do imagine; therefore leaving those gilded conceits, and dive into the true estate of the colony, I think if His Majesty were truly informed of their necessity and the benefit of this project, he would be pleased to give the custom of Virginia, and the planters also according to their abilities would add thereto such a contribution, as would be fit to maintain this garrison till they be able to subsist, or cause some such other collections to be made as may put it with all expedition in practice, otherwise it is much to be doubted, there will neither come custom nor any thing from thence to England within these few years.

Now if this should be thought an employment more fit for ancient soldiers there bred, than such new comers as may go with me, you may please to leave that to my discretion, to accept or refuse such voluntaries, that will hazard their fortunes in the trials of these events, and discharge such of my company that had rather labour the ground than subdue their enemies: what relief I should have from your colony I would satisfy and spare them (when I could) the like courtesy. Notwithstanding these doubts, I hope to feed them as well as defend them, and yet discover you more land unknown than they all yet know, if you will grant me such privileges as of necessity must be used.

For against any enemy we must be ready to execute the best can be devised by your state there, but not that they shall either take away my men, or any thing else to employ as they please by virtue of their authority, and in that I have done somewhat for New England as well as Virginia, so I would desire liberty and authority to make the best use I can of my best experience, within the limits of those two patents, and to bring them both in one map, and the countries betwixt them, giving always that respect to the governors and government, as an Englishman doth in Scotland, or a Scotchman in England, or as the regiments in the Low Countries do to the governors of the towns and cities where they are billeted or in garrison, where though they live with them and are as their servants to defend them, yet not to be disposed on at their pleasure, but as the prince and state doth command them, and for my own pains in particular I ask not any thing but what I can produce from the proper labour of the savages.

Their Answer.

I CANNOT say it was generally for the company, for being published in their court, the most that heard it liked exceeding well of the motion, and some would have been very large adventurers in it, especially Sir John Brooks and Mr. David Wyffin, but there were such divisions amongst them, I could obtain no answer but this, the charge would be too great; their stock was decayed, and they did think the planters should do that of themselves if I could find means to effect it; they did think I might have leave of the company, provided they might have half the pillage; but I think there are not many will much strive for that employment, for except it be a little corn at some time of the year is to be had, I would not give twenty pounds for all the pillage is to be got amongst the savages in twenty years, but because they supposed I spoke only for my own ends, it were good those understand providents for the company's good they so much talk of, were sent thither to make trial of their profound wisdom and long experience.

About this time also was propounded a proposition concerning a salary of five-and-twenty thousand pounds to be raised out of tobacco, as a yearly pension to be paid to certain officers for the erecting a new office, concerning the sole importation of tobacco, besides His Majesty's custom, freight, and all other charges. To nominate the undertakers, favourers and opposers, with their arguments pro and con, would be too tedious and needless, being so publicly known, the which to establish, spent a good part of that year and the beginning of the next. This made many think wonders of Virginia, to pay such pensions extraordinary to a few here that were never there, and also in what state and pomp some chieftains and divers of their associates

live in Virginia, and yet no money to maintain a garrison, pay poor men their wages, nor yet five-and-twenty pence to all the adventurers here, and very little to the most part of the planters there, bred such differences in opinion, it was dissolved.

Now let us return to Captain Croshaw at Patawomek, where he had not been long ere Opechancanough sent two baskets of beads to this King, to kill him and his man, assuring him of the massacre he had made, and that before the end of two moons there should not be an Englishman in all their countries: this fearful message the King told this captain, who replied, he had seen both the cowardice and treachery of Opechancanough sufficiently tried by Captain Smith, therefore his threats he feared not, nor for his favour cared, but would nakedly fight with him, or any of his, with their own swords; if he were slain, he would leave a letter for his countrymen to know the fault was his own, not the King's; two days the King deliberated upon an answer; at last told him the English were his friends, and the savage Emperor Opitchapam, now called Toyatan, was his brother, therefore there should be no blood shed betwixt them; so he returned the presents, willing the Pamaunkes to come no more in his country, lest the English, though against his will, should do them any mischief.

Not long after, a boat going abroad to seek out some relief amongst the plantations, by Nuports-newes, met such ill weather, though the men were saved, they lost their boat, which the storm and waves cast upon the shore of Nandsamund, where Edward Waters, one of the three that first stayed in Summer Isles, and found the great piece of ambergrease; dwelling in Virginia at this massacre, he and his wife these Nandsamunds kept prisoners, till it chanced they found this boat, at which purchase they so rejoiced, according to their custom of triumph, with songs, dances, and invocations, they were so busied, that Waters and his wife found opportunity to get secretly into their canoe, and so crossed the river to Kecoughtan, which is nine or ten miles, whereat the English no less wondered and rejoiced, than the savages were mad with discontent. Thus you may see how many desperate dangers some men escape, when others die that have all things at their pleasure.

All men thinking Captain Croshaw dead, Captain Hamer arriving with a ship and a pinnace at Patawomek, was kindly entertained both by him and the King; that Don Hamer told the King he came for corn: the King replied, he had none, but the Nacotchtanks and their confederates had, which were enemies both to him and them; if they would fetch it, he would give them forty or fifty choice bow-men, to conduct and assist them. Those savages, with some of the English, they sent, who so well played their parts, they slew eighteen of the Nacotchtanks, some write but four, and some say they had a long skirmish with them, where the Patawomeks were so eager of revenge, they drove them not only out of their town, but all out of sight through the woods, thus taking what they liked, and spoiling the rest; they retired to Patawomek, where they left Captain Croshaw, with four men more, the rest set sail for James Town. Captain Croshaw now, with five men and himself, found night and day so many alarms, he retired into such a convenient place that, with the help of the savages, he had quickly fortified himself against all those wild enemies. Captain Nuse, his pinnace meeting Hamar by the way, understanding all this, came to see Captain Croshaw; after their best interchanges of courtesies, Croshaw writ to Nuse, the estate of the place where he was, but understanding by them the poor estate of the colony, offered if they would send him but a bold shallop, with men, arms, and provision for trade, the next harvest he would provide them corn sufficient; but as yet, it being but the latter end of June, there was little or none in all the country.

This being made known to the governor and the rest, they sent Captain Madyson, with

with a ship and pinnace, and some six-and-thirty men; those Croshaw a good time taught the use of their arms, but receiving a letter from Boyse, his wife, a prisoner, with nineteen more, at Pamaunke, to use means to the governor for their liberty; so he dealt with his King, he got first two of his great men to go with him to James' Town, and eight days after to send four of his council to Pamaunke, there to stay till he sent one of his two to them, to persuade Opachankanough to send two of his with two of the Patawomekes, to treat about those prisoners, and the rest should remain their hostage at Pamaunke; but the commanders at James Town, it seems, liked not of it, and so sent the Patawomekes back again to their own country, and Captain Croshaw to his own habitation.

All this time we have forgot Captain Nuse, where we left him but newly acquainted with the massacre, calling all his next adjoining dispersed neighbours together, he regarded not the pestering his own house, nor any thing to relieve them, and with all speed entrenched himself, mounted three pieces of ordnance, so that within fourteen days, he was strong enough to defend himself from all the savages; yet when victuals grew scant, some that would forage without order, which he punished, near occasioned a mutiny: notwithstanding, he behaved himself so fatherly and kindly to them all, they built two houses for them he daily expected from England, a fair well of fresh water, mantled with brick, because the river and creeks are there brackish or salt; in all which things he played the sawyer, carpenter, dauber, labourer, or any thing; wherein, though his courage and heart were steeled, he found his body was not made of iron, for he had many sicknesses, and at last a dropsey, no less grief to himself than sorrow to his wife, and all under his government. These crosses and losses were no small increasers of this malady, nor the thus abandoning our plantations, the loss of our harvest, and also tobacco, which was as our money; the vineyard our vineyetors had brought to a good forwardness, bruised and destroyed with deer, and all things ere they came to perfection, with weeds, disorderly persons, or wild beasts; so that as we are, I cannot perceive but the next year will be worse, being still tormented with pride and flattery, idleness and covetousness, as though they had vowed here to keep their court, with all the pestilential vices in the world for their attendants, enchanted with a conceited stateliness, even in the very bottom of miserable senselessness.

Shortly after, Sir George Yearley and Captain William Powell took each of them a company of well-disposed gentlemen and others, to seek their enemies: Yearley ranging the shore of Weanock, could see nothing but their old houses which he burnt, and so went home: Powell searching another part, found them all fled but three he met by chance, whose heads he cut off, burnt their houses, and so returned; for the savages are so light and swift, though we see them, (being so loaded with armour,) they have much advantage of us, though they be cowards.

I confess this is true, and it may cause some to suppose they are grown invincible; but will any go to catch a hare with a taber and a pipe? for who knows not, though there be monsters both of men and beasts, fish and fowl, yet the greatest, the strongest, the wildest, cruellest, fiercest, and cunningest, by reason, art, and vigilancy, courage and industry, hath been slain, subjected, or made tame, and those are still but savages as they were, only grown more bold by our own simplicity, and still will be worse and worse, till they be tormented with a continual pursuit, and not with lying inclosed within palisadoes, or affrighting them out of your sights, thinking they have done well, can but defend themselves; and to do this to any purpose, will require both charge, patience, and experience. But to their proceedings.

About the latter end of June, Sir George Yearley, accompanied with the council, and a number of the greatest gallants in the land, stayed three or four days with Cap-

tain Nuse, he making his moan to a chief man amongst them for want of provision for his company : the great commander replied, he should turn them to his green corn, which would make them plump and fat ; these fields being so near the fort, were better regarded and preserved than the rest ; but the great man's command, as we call them, was quickly obeyed, for though it was scarce half grown either to the greatness or goodness, they devoured it green though it did them small good. Sir George with his company went to Accomack to his new plantation, where he staid near six weeks ; some corn he brought home, but as he adventured for himself, he accordingly enjoyed the benefit ; some petty magazines came this summer, but either the restraint by proclamation, or want of boats, or both, caused few but the chieftains to be little better by them. So long as Captain Nuse had any thing we had part ; but now all being spent, and the people forced to live upon oysters and crabs, they became so faint no work could be done ; and where the law was, no work, no meat, now the case is altered to no meat, no work ; some small quantity of milk and rice the captain had of his own, and that he would distribute *gratis* as he saw occasion ; I say *gratis*, for I know no place else, but it was sold for ready payment : those ears of corn that had escaped till August, though not ripe by reason of the late planting, the very dogs did repair to the corn fields to seek them as the men till they were hanged ; and this I protest before God is true that I have related, not to flatter Nuse, nor condemn any ; but all the time I have lived in Virginia, I have not seen nor heard that any commander hath taken such continual pains for the public, or done so little good for himself, and his virtuous wife was no less charitable and compassionate according to her power. For my own part, although I found neither mulberries planted, houses built, men nor victuals provided, as the honourable adventurers did promise me in England ; yet at my own charge, having made these preparations, and the silk-worms ready to be covered, all was lost, but my poor life and children, by the massacre, the which as God in his mercy did preserve, I continually pray we may spend to his glory. The 9th of September we had an alarm, and two men at their labours slain ; the captain, though extremely sick, sallied forth, but the savages lay hid in the corn-fields all night, where they destroyed all they could, and killed two men more ; much mischief they did to Mr. Edward Hill's cattle, yet he alone defended his house, though his men were sick and could do nothing, and this was our first assault since the massacre.

About this time Captain Madyson passed by us, having taken prisoners the King of Patawomek, his son, and two more, and thus it happened : Madyson not liking so well to live amongst the savages as Croshaw did, built him a strong house within the fort, so that they were not so sociable as before, nor did they much like Poole the interpreter ; many alarms they had, but saw no enemies : Madyson, before his building, went to Moyaons, where he got provision for a month, and was promised much more, so he returned to Patawomek and built this house, and was well used by the savages. Now by the four great men the King sent to Pamaunke for the redemption of the prisoners, Madyson sent them a letter, but they could neither deliver it nor see them : so long they staid that the King grew doubtful of their bad usage, that he swore by the skies, if they returned not well, he would have wars with Opechankanough so long as he had any thing : at this time two of Madyson's men ran from him ; to find them, he sent Mr. John Upton and three more with an Indian guide to Nazatica, where they heard they were. At this place was a King beat out of his country by the Necotts, enemies to the Patawomeks ; this expelled King, though he professed much love to the Patawomeks, yet he loved not the King because he would not help him to revenge his injuries ; but to our interpreter, Poole, he protested great love, promising if any treason were, he

he would reveal it : our guide conducted this Bandyto with them up to Parawomek, and there kept him ; our fugitives, we found the Patawomeks had taken and brought home, and the four great men returned from Pamaunke ; not long after, this expelled King desired private conference with Poole, urging him to swear by his God never to reveal what he would tell him ; Poole promised he would not : " Then," quoth this King, " those great men that went to Pamaunke, went not as you suppose they pretended, but to contract with Opechankanough how to kill you all here, and these are their plots.

" First, they will procure half of you to go a fishing to their furthest town, and there set upon them, and cut off the rest ; if that fail, they will feign a place where are many strangers would trade their furs, where they will persuade half of you to go trade, and there murder you and kill them at home ; and if this fail also, then they will make alarms two nights together, to tire you out with watching, and then set upon you ; yet, of all this, (said he,) there is none acquainted but the King and the great conjurer."

This being made known to the captain, we all stood more punctually upon our guard, at which the savages wondering, desired to know the cause ; we told them we expected some assault from the Pamaunkes, whereat they seemed contented, and the next day the King went on hunting with two of our men, and the other fishing and abroad as before, till our shallop returned from James Town, with the two savages, sent home with Captain Croshaw ; by those the governor sent to Madyson, that this King should send him twelve of his great men ; word of this was sent to the King at another town where he was, who not coming presently with the messenger, Madyson conceited he regarded not the message, and intended, as he supposed, the same treason. The next morning the King coming home, being sent for, he came to the captain, and brought him a dish of their daintiest fruit ; then the captain feigned his return to James Town ; the King told him he might if he would, but desired not to leave him destitute of aid, having so many enemies about him ; the captain told him he would leave a guard, but entreated his answer concerning the twelve great men for the governor ; the King replied, his enemies lay so about him he could not spare them ; then the captain desired his son and one other ; my son, said the King, is gone abroad about business, but the other you desire you shall have, and that other sits by him ; but that man refused to go, whereupon Madyson went forth and locked the door, leaving the King, his son, and four savages, and five Englishmen in the strong-house, and setting upon the town with the rest of his men, slew thirty or forty men, women, and children : the King demanding the cause, Poole told him the treason, crying out to entreat the captain cease from such cruelty ; but having slain and made fly all in the town, he returned, taxing the poor King of treason, who denied to the death not to know of any such matter ; but said, this is some plot of them that told it, only to kill me for being your friend. Then Madyson willed him, to command none of his men should shoot at him as he went aboard, which he presently did, and it was performed : so Madyson departed, leading the King, his son, and two more to his ship, promising when all his men were shipped, he should return at liberty ; notwithstanding he brought them to James Town, where they lay some days, and after were sent home by Captain Hamer, that took corn for their ransom, and after set sail for Newfoundland.

But, alas the cause of this was only this,
They understood, nor knew what was amiss.

Ever

Ever since the beginning of these plantations, it hath been supposed the King of Spain would invade them, or our English Papists endeavour to dissolve them. But neither all the councils of Spain nor Papists in the world could have devised a better course to bring them all to ruin, than thus to abuse their friends: nor could there ever have been a better plot to have overthrown Opechankanough than Captain Croshaws, had it been fully managed with expedition. But it seems God is angry to see Virginia made a stage where nothing but murder and indiscretion contends for victory.

Among the rest of the plantations all this summer little was done, but securing themselves, and planting tobacco, which passes there as current silver, and by the oft turning and winding it, some grow rich, but many poor, notwithstanding ten or twelve ships or more hath arrived there since the massacre, although it was Christmas ere any returned, and that return greatly revived all men's longing expectation here in England; for they brought news, that notwithstanding their extreme sickness, many were recovered, and finding the savages did not much trouble them, except it were sometimes some disorderly stragglers they cut off. To lull them the better in security, they sought no revenge till their corn was ripe; then they drew together three hundred of the best soldiers they could, and would leave their private business, and adventure themselves amongst the savages, to surprize their corn, under the conduct of Sir George Yearley, being embarked in convenient shipping, and all things necessary for the enterprise; they first went to Nandsamund, where the people set fire on their own houses, and spoiled what they could, and then fled with what they could carry; so that the English did make no slaughter amongst them for revenge. Their corn-fields being newly gathered, they surprized all they found, burnt all the houses remained unburnt, and so departed. Quartering about Kecoughtan, after the watch was set, Samuel Collyer, one of the most ancient planters, and very well acquainted with their language and habitation, humours and conditions, and governor of a town, when the watch was set going the round, unfortunately by a centinel that discharged his piece, was slain.

Thence they sailed to Pamaunke, the chief seat of Opechankanough, the contriver of the massacre: the savages seemed exceeding fearful, promising to bring them Sara, and the rest of the English yet living, with all the arms, and what they had to restore, much desiring peace, and to give them any satisfaction they could. Many such devices they feigned to procrastinate the time ten or twelve days, till they had got away their corn from all the other places up the river, but that where the English kept their quarter; at last, when they saw all those promises were but delusions, they seized on all the corn there was, set fire on their own houses; and in following the savages that fled before them, some few of those naked devils had that spirit, they lay in ambuscado, and as our men marched, discharged some shot out of English pieces, and hurt some of them, flying at their pleasures where they listed, burning their empty houses before them, as they went to make themselves sport; so they escaped; and Sir George returned with corn, where for our pains we had three bushels a-piece; but we were enjoined before we had it, to pay ten shillings the bushel for freight and other charges. Thus, by this means, the savages are like, as they report, to endure no small misery this winter; and that some of our men are returned to their former plantations.

What other passages or impediments happened in their proceedings, that they were not fully revenged of the savages before they returned, I know not, nor could ever hear more, but that they supposed they slew two, and how it was impossible for any men to do more than they did; yet worthy Ferdinando Courtus had scarce three hundred Spaniards to conquer the great city of Mexico, where thousands of savages dwelled in strong

strong houses ; but because they were a civilized people, had wealth, and those mere barbarians, as wild as beasts have nothing ; I intreat your patience, to tell you my opinion, which if it be God's pleasure I shall not live to put in practice, yet it may be hereafter useful for some, but howsoever, I hope not hurtful to any, and this it is.

Had these three hundred men been at my disposing, I would have sent first one hundred to Captain Rawley Croshaw to Patawomek, with some small ordnance for the fort, the which but with daily exercising them, would have struck that love and admiration into the Patawomeks, and terror and amazement into his enemies, which are not far off, and most seated upon the other side the river, they would willingly have been friends, or have given any composition they could, before they would be tormented with such a visible fear.

Now though they be generally perfidious, yet necessity constrains those to a kind of constancy because of their enemies, and neither myself that first found them, Captain Argall, Croshaw, nor Hamar, never found themselves in fifteen years trial ; nor is it likely now they would have so hostages their men, suffer the building of a fort, and their women and children amongst them, had they intended any villany ; but suppose they had, who would have desired a better advantage than such an advertisement, to have prepared the fort for such an assault, and surely it must be a poor fort they could hurt, much more take, if there were but five men in it, durst discharge a piece : therefore a man not well knowing their condition, may be as well too jealous as too careless ; such another lope sconce would I have had at Onawmanient, and one hundred men more to have made such another at Atquacke, upon the river of Toppahanock, which is not past thirteen miles distant from Onawmanient : each of which twelve men would keep, as well as twelve thousand, and spare all the rest, to be employed as there should be occasion : and all this with these numbers might easily have been done, if not by courtesy, yet by compulsion, especially at that time of September, when all their fruits were ripe, their beasts fat, and infinite numbers of wild-fowl began to repair to every creek, that men, if they would do any thing, could not want victuals. This done, there remained yet one hundred who should have done the like at Ozinieke, upon the river of Chickahamania, not past six miles from the chief habitations of Opechankanough. These small forts had been cause sufficient to cause all the inhabitants of each of those rivers to look to themselves ; then having so many ships, barks, and boats in Virginia, as there was at that present, with what facility might you have landed two hundred and twenty men, if you had but only five or six boats, in one night ; forty to range the branch of Mattapanyent, forty more that of Youghtanund, and forty more to keep their rendezvous at Pamaunke itself. All which places lie so near they might hear from each other within four or five hours, and not any of those small parties, if there were any valour, discretion, or industry in them, but as sufficient as four thousand, to force them all to contribution, or take or spoil all they had : for having thus so many convenient rendezvous to relieve each other, though all the whole countries had been our enemies, where could they rest, but in the depth of winter we might burn all the houses upon all those rivers in two or three days ? Then without fires they could not live, which they could not so hide, but we should find, and quickly so tire them with watching and warding, they would be so weary of their lives, as either fly all their countries, or give all they had, to be released of such an hourly misery. Now if but a small number of the savages would assist us, as there is no question but divers of them would ; and to suppose they could not be drawn to such faction, were to believe they are more virtuous than many Christians, and the best governed people in the world. All the Pamaunkes might have been dispatched as well in a month as in a year, and then

then to have dwelt with any other enemies at our pleasure, and yet made all this toil and danger but a recreation.

If you think this strange or impossible, twelve men with myself I found sufficient, to go where I would a-days, and surprize a house with the people, if not a whole town in a night, or encounter all the power they could make, as a whole army, as formerly at large hath been related : and it seems, by these small parties last amongst them, by Captain Croshaw, Hamar, and Madyson, they are not grown to that excellency in policy and courage, but they might be encountered, and their wives and children apprehended. I know I shall be taxed for writing so much of myself, but I care not much, because the judicial know there are few such soldiers as are my examples, have writ their own actions, nor know I who will or can tell my intents better than myself.

Some again find as much fault with the Company for meddling with so many plantations together, because they that have many irons in the fire some must burn ; but I think no, if they have men enough know how to work them ; but howsoever, it were better some burn than have none at all. The King of Spain regards but how many powerful kingdoms he keeps under his obedience, and for the savage countries he hath subjected, they are more than enough for a good cosmographer to nominate. And is three mole-hills so much to us, and so many empires so little for him ? For my own part, I cannot choose but grieve, that the actions of an Englishman should be inferior to any, and that the command of England should not be as great as any monarchy that ever was since the world began ; I mean, not as a tyrant to torment all Christendom, but to suppress her disturbers, and conquer her enemies.

For the great Romans got into their hand,
The whole world's compass, both by sea and land,
Or any seas, or heaven or earth extended,
And yet that nation could not be contented.

Much about this time arrived a small bark of Barnstable, which had been at the Summer Isles, and in her Captain Nathaniel Butler, who having been governor there three years, and his commission expired, he took the opportunity of this ship to see Virginia. At James Town he was kindly entertained by Sir Francis Wyat, the governor. After he had rested there fourteen days, he fell up with his ship to the river of Chickahamania, where meeting with Captain William Powell, joining together such forces as they had to the number of eighty, they set upon the Chickahamanians, that fearfully fled, suffering the English to spoil all they had, not daring to resist them. Thus he returned to James Town, where he staid a month, at Kecoughtan as much more, and so returned for England.

But riding at Kecoughtan, Mr. John Argent, son of Dr. Argent, a young gentleman that went with Captain Butler from England to this place, Michael Fuller, William Gany, Cornelius May, and one other, going ashore with some goods late in a fair evening, such a sudden gust did arise, that drove them athwart the river, in that place at least three or four miles in breadth, where the shore was so shallow at a low water, and the boat beating upon the sands, they left her, wading near half a mile, and oft up to the chin : so well it happened, Mr. Argent had put his bandalier of powder in his hat, which, next God, was all their preservations ; for it being February, and the ground so cold, their bodies became so benumbed, they were not able to strike fire with a steel and a stone he had in his pocket ; the stone they lost twice, and thus those poor souls groping in the dark, it was Mr. Argent's chance to find it, and with a few withered leaves, reeds, and brush, make a small fire : being upon the Chesapeake's

shore, their mortal enemies, great was their fear to be discovered. The joyful morning appearing, they found their boat and goods driven ashore, not far from them, but so split, she was unserviceable; but so much was the frost, their clothes did freeze upon their backs, for they durst not make any great fire to dry them, lest thereby the bloody savages might descry them, so that one of them died the next day, and the next night digging a grave in the sands with their hands, buried him. In this bodily fear they lived and fasted two days and nights, then two of them went into the land to seek fresh water; the others, to the boat, to get some meal and oil. Argent and his comrade found a canoe, in which they resolved to adventure to their ship, but she was adrift in the river before they returned: thus frustrated of all hopes, Captain Butler, the third night, ranging the shore in his boat to seek them, discharged his muskets; but they supposing it some savages had got some English pieces, they grew more perplexed than ever, so he returned, and lost his labour. The fourth day they unloaded their boat, and stopping her leaks with their handkerchiefs and other rags, two rowing, and two baling out the water; but far they went not ere the water grew upon them so fast, and they so tired, they thought themselves happy to be on shore again, though they perceived the Indians were not far off by their fires. Thus, at the very period of despair, Fuller undertook to sit astride upon a little piece of an old canoe; so well it pleased God, the wind and tide served, by paddling with his hands and feet in the water, beyond all expectation, God so guided him three or four hours upon this board, he arrived at their ship, where they no less amazed than he tired, they took him in. Presently, as he had concluded with his companions, he caused them to discharge a piece of ordnance if he escaped, which gave no less comfort to Mr. Argent and the rest, than terror to those plantations that heard it (being late), at such an unexpected alarm: but after, with warm cloaths and a little strong water, they had a little recovered him, such was his courage and care of his distressed friends, he returned that night again, with Mr. Felgate to conduct him to them; and so giving thanks to God for so hopeless a deliverance, it pleased his divine power both they and their provision came safely aboard; but Fuller, they doubt, will never recover his benumbed legs and thighs.

Now, before Butler's arrival in England, many hard speeches were rumoured against him for so leaving his charge, before he received order from the Company: divers again of his soldiers as highly commended him for his good government, art, judgment, and industry. But to make the misery of Virginia appear, that it might be reformed in time, how all those cities, towns, corporations, forts, vineyards, nurseries of mulberries, glass-houses, iron-forges, guest-houses, silk-worms, colleges, the Company's great estate, and that plenty some do speak of here, are rather things in words and paper, than in effect, with divers reasons of the causes of those defects; if it were false, his blame nor shame could not be too much: but if there be such defects in the government, and distress in the colony, it is thought by many it hath been too long concealed, and requireth rather reformation than disputation: but, however, it were not amiss to provide for the worst, for the best will help itself. Notwithstanding, it was apprehended so hardly, and examined with that passion, that the bruit thereof was spread abroad with that expedition it did more hurt than the massacre; and the fault of all now, by the vulgar rumour, must be attributed to the unwholesomeness of the air, and barrenness of the country, as though all England were nought, because the fens and marshes are unhealthy; or barren, because some will lie under windows and starve in Cheapside, rot in gaols, die in the street, highways, or any where, and use a thousand devices to maintain themselves in those miseries, rather than take any pains

to live as they may by honest labour; and a great part of such like are the planters of Virginia, and partly the occasion of these defaultments.

In the latter end of this last year, or the beginning of this, Captain Henry Spilman, a gentleman that hath lived in those countries thirteen or fourteen years, one of the best interpreters in the land, being furnished with a bark and six-and-twenty men, he was sent to truck in the river of Patawomek, where he had lived a long time amongst the savages; whether he presumed too much upon his acquaintance amongst them, or they sought to be revenged of any for the slaughter made amongst them by the English so lately, or he sought to betray them, or they him, are all several relations, but it seems but imaginary: for then returned report they left him ashore about Patawomek; but the name of the place they knew not, with one-and-twenty men, being but five in the bark, the savages, ere they suspected any thing, boarded them with their canoes, and entered so fast, the English were amazed, till a sailor gave fire to a piece of ordnance, only at random; at the report whereof the savages leaped overboard, so distracted with fear, they left their canoes and swam ashore; and presently they heard a great bruit amongst the savages ashore, and saw a man's head thrown down the bank; whereupon they weighed anchor, and returned home; but how he was surprized or slain is uncertain.

Thus things proceed and vary not a jot,
Whether we know them, or we know them not.

A Particular of such Necessaries as either private Families or single Persons shall have Cause to provide to go to Virginia, whereby greater Numbers may in part conceive the better how to provide for themselves.

<i>Apparel.</i>			<i>Viſtuals for a whole Year for a Man, and ſo after the Rate for more.</i>		
	£.	s. d.		£.	s. d.
A Monmouth cap - -	0	1 10	8 Buſhels of meal - -	2	0 0
3 Falling bands - -	0	1 3	2 Buſhels of peas - -	0	6 0
3 Shirts - -	0	7 6	2 Buſhels of oatmeal - -	0	9 0
1 Waſtcoat - -	0	2 2	1 Gallon of aqua vitæ - -	0	2 6
1 Suit of canvas - -	0	7 6	1 Gallon of oil - -	0	3 6
1 Suit of frieze - -	0	10 0	2 Gallons of vinegar - -	0	2 0
1 Suit of cloth - -	0	15 0			
3 Pair of Irish ſtockings - -	0	4 0		3	3 0
4 Pair of ſhoes - -	0	8 8			
1 Pair of gaiters - -	0	0 10			
1 Dozen of points - -	0	0 3			
1 Pair of canvas ſheets - -	0	8 0			
7 Ells of canvas to make a bed and bolſter, to be filled in Vir- ginia, ſerving for two men - -	0	8 0	<i>Arms for a Man; but if half your Men be armed it is well, ſo all have Swords and Pieces.</i>		
5 Ells of coarſe canvas to make a bed at ſea for two men - -	0	5 0	1 Armour complete, light - -	0	17 0
1 Coarſe rug at ſea for two men - -	0	6 0	1 Long piece, five feet and a half, near muſket-bore - -	1	2 0
	4	0 0	1 Sword - -	0	5 0
			1 Belt - -	0	1 0
			1 Bandelier - -	0	1 6
			20 Pounds of powder - -	0	18 0
					60 Pounds

	£.	s.	d.	Household Implements for a Family and six Persons, and so for more or less, after the Rate.	£.	s.	d.
60 Pounds of shot or lead, pistol and goose shot - - -	0	5	0				
	3	9	6	1 Iron-pot - - -	0	7	0
				1 Kettle - - -	0	6	0
<i>Tools for a Family of six Persons, and so after the Rate for more.</i>				1 Large frying-pan - - -	0	2	6
5 Broad hoes, at 2s. a-piece	0	10	0	1 Gridiron - - -	0	1	6
5 Narrow hoes, at 16d. a-piece	0	6	8	2 Skillets - - -	0	5	0
2 Broad axes, at 3s. 8d. a-piece	0	7	4	1 Spit - - -	0	2	0
5 Felling-axes, at 18d. a-piece	0	7	6	Platters, dishes, spoons of wood	0	4	0
2 Steel hand-saws, at 16d. a-piece	0	2	8		1	8	0
2 Two-hand-saws, at 5s. a-piece	0	10	0				
1 Whip-saw, set and filed, with box, file, and rest - - -	0	10	0	For sugar, spice, and fruit, and at sea for six men - - -	0	12	6
2 Hammers, 12d. a-piece - - -	0	2	0	So the full charge after this rate for each person will amount about the sum of - - -	12	10	10
3 Shovels, 18d. a-piece - - -	0	4	6	The passage of each man is - - -	6	0	0
2 Spades, at 18d. a-piece - - -	0	3	0	The freight of these provisions for a man will be above half a ton, which is - - -	1	10	0
2 Augers, at 6d. a-piece - - -	0	1	0	So the whole charge will amount to about - - -	20	0	0
6 Chissels, at 6d. a-piece - - -	0	3	0				
2 Piercers, stocked, 4d. a-piece	0	0	8				
3 Gimlets, at 2d. a-piece - - -	0	0	6				
2 Hatchets, at 21d. a-piece - - -	0	3	6				
2 Frows to cleave pale, 18d. each	0	3	0				
2 Hand-bills, 20d. a-piece - - -	0	3	4				
1 Grindstone - - - - -	0	4	0				
Nails of all sorts to the value of	2	0	0				
2 Pickaxes - - - - -	0	3	0				
	6	5	8				

Now if the number be great, nets, hooks, and lines, but cheese, bacon, kine, and goats, must be added. And this is the usual proportion the Virginia Company do bestow upon their tenants they send.

A brief Relation, written by Captain Smith to His Majesty's Commissioners, for the Reformation of Virginia, concerning some Aspersions against it.

Honourable Gentlemen,

FOR so many fair and navigable rivers so near adjoining, and piercing through so fair a natural land, free from any inundations, or large fenny unwholesome marshes, I have not seen, read, nor heard of: and for the building of cities, towns, and wharfage, if they will use the means, where there is no more ebb nor flood, nature in few places affords any so convenient, for salt marshes or quagmires. In this tract of James Town river, I know very few; some small marshes and swamps there are, but more profitable than hurtful; and I think there is more low marsh ground betwixt Erith and Chelsea, than Kecoughton and the Falls, which is about one hundred and eighty miles by the course of the river.

Being enjoined by our commission not to unplant nor wrong the savages, because the channel was so near the shore, where now is James Town, then a thick grove of trees, we cut them down, where the savages pretending as much kindness as could be, they hurt and slew one-and-twenty of us in two hours. At this time our diet was for most part water and bran, and three ounces of little better stuff in bread for five men a meal; and thus we lived near three months: our lodgings under boughs of trees, the savages being our enemies, whom we neither knew nor understood, occasions, I think, sufficient to make men sick and die.

Necessity thus did enforce me, with eight or nine, to try conclusions amongst the savages, that we got provision, which recovered the rest, being most sick. Six weeks I was led captive by those barbarians, though some of my men were slain, and the rest fled; yet it pleased God to make their great King's daughter the means to return me safe to James Town, and relieve our wants; and then our commonwealth was in all eight-and-thirty, the remainder of one hundred and five.

Being supplied with one hundred and twenty, with twelve men in a boat of three tons, I spent fourteen weeks in those large waters; the contents of the way of my boat, protracted by the scale of proportion, was about three thousand miles, besides the river we dwell upon, where no Christian known ever was, and our diet for the most part what we could find, yet but one died.

The savages being acquainted, that by command from England we durst not hurt them, were much imboldened; that famine and their insolencies did force me to break our commission and instructions, cause Powhatan fly his country, and take the King of Pamaunke prisoner; and also to keep the King of Paspahegh in shackles, and put his men to double tasks in chains, till nine-and-thirty of their Kings paid us contribution, and the offending savages sent to James Town to punish at our own discretion: in the two last years I staid there, I had not a man slain.

All those conclusions being not able to prevent the bad events of pride and idleness, having received another supply of seventy, we were about two hundred in all, but not twenty workmen: in following the strict directions from England to do that was impossible at that time; so it happened, that neither we nor they had any thing to eat, but what the country afforded naturally; yet of eighty who lived upon oysters in June and July, with a pint of corn a week for a man, lying under trees, and one hundred and twenty for the most part living upon sturgeon, which was dried till we pounded it to powder for meal, yet in ten weeks but seven died.

It is true, we had of tools, arms, and ammunition sufficient, some aquavitæ, vinegar, meal, pease, and oatmeal, but in two years and a half not sufficient for six months, though by the bills of lading the proportions sent us would well have contented us, notwithstanding we sent home ample proofs of pitch, tar, sope-ashes, wainscoat, clapboard, silk-grass, iron ore, some sturgeon, and glass, sassafras, cedar, cypress, and black walnut, crowned Powhatan, fought the Monacans country, according to the instructions sent us, but they caused us neglect more necessary works: they had better given for pitch and soap-ashes one hundred pound a ton in Denmark: we also maintained five or six several plantations.

James Town being burnt, we rebuilt it and three forts more; besides the church and store-house, we had about forty or fifty several houses to keep us warm and dry, environed with a palisado of fourteen or fifteen feet, and each as much as three or four men could carry. We digged a fair well of fresh water in the fort, where we had three bulwarks, four-and-twenty pieces of ordnance, of culvering, demiculvering, sacar and falcon, and most well mounted upon convenient platforms, planted one hundred acres of

of corn. We had but six ships to transport and supply us, and but two hundred seventy seven men, boys, and women, by whose labours Virginia being brought to this kind of perfection, the most difficulties past, and the foundation thus laid by this small means: yet because we had done no more, they called in our commission, took a new in their own names, and appointed us near as many offices and officers as I had soldiers, that neither knew us, nor we them, without our consents or knowledge; since there have gone more than one hundred ships of other proportions, and eight or ten thousand people. Now if you please to compare what hath been spent, sent, discovered and done these fifteen years, by that we did in the three first years, and every governor that hath been there since, give you but such an account as this, you may easily find what hath been the cause of those disasters in Virginia.

Then came in Captain Argall and Mr. Sedan, in a ship of Mr. Cornelius, to fish for sturgeon, who had such good provision, we contracted with them for it, whereby we were better furnished than ever.

Not long after came in seven ships, with about three hundred people; but rather to supplant us than supply us; their admiral with their authority being cast away in the Bermudas, very angry they were we had made no better provision for them. Seven or eight weeks we withstood the inundations of these disorderly humours, till I was near blown to death with gunpowder, which occasioned me to return for England.

In the year 1609, about Michaelmas, I left the country, as is formerly related, with three ships, seven boats, commodities to trade, harvest newly gathered, eight weeks provision of corn and meal, about five hundred persons, three hundred muskets, shot, powder, and match, with arms for more men than we had. The savages their language and habitation, well known to two hundred expert soldiers; nets for fishing, tools of all sorts, apparel to supply their wants: six mares and a horse, five or six hundred swine, many more poultry, what was brought or bred, but victuals there remained.

Having spent some five years, and more than five hundred pounds in procuring the letters patents and setting forward, and near as much more about New England, &c. Thus these nineteen years I have here and there not spared any thing according to my ability, nor the best advice I could, to persuade how those strange miracles of misery might have been prevented, which lamentable experience plainly taught me of necessity must ensue; but few would believe me till now too dearly they have paid for it. Wherefore hitherto I have rather left all than undertake impossibilities, or any more such costly tasks at such chargeable rates: for in neither of those two countries have I one foot of land, nor the very house I builded, nor the ground I digged with my own hands, nor ever any content or satisfaction at all; and though I see ordinarily those two countries shared before me by them that neither have them nor know them, but by my descriptions; yet that doth not so much trouble me, as to hear and see those contentions and divisions which will hazard if not ruin the prosperity of Virginia, if present remedy be not found, as they have hindered many hundreds who would have been there ere now, and makes them yet that are willing to stand in a demurrer.

For the books and maps I have made, I will thank him that will shew me so much for so little recompence, and bear with their errors till I have done better. For the materials in them I cannot deny, but am ready to affirm them both there and here, upon such grounds as I have propounded, which is to have but fifteen hundred men to subdue again the savages, fortify the country, discover that yet unknown, and both defend and feed their colony, which I most humbly refer to His Majesty's most judicial judgment, and the most honourable Lords of his privy council, you his trusty and well
beloved

beloved commissioners, and the honourable company of planters and well willers to Virginia, New England and Sommer-Islands.

Out of these Observations it pleased His Majesty's Commissioners for the Reformation of Virginia, to desire my Answer to these seven Questions.

Quest. 1. WHAT conceive you is the cause the plantation hath prospered no better since you left it in so good a forwardness?

Answ. Idleness and carelessness brought all I did in three years in six months to nothing; and of five hundred I left, scarce threescore remained; and had Sir Thomas Gates not got from the Bermudas, I think they had been all dead before they could be supplied.

Quest. 2. What conceive you should be the cause, though the country be good, there comes nothing but tobacco?

Answ. The often altering of governors, it seems, causes every man make use of his time; and because corn was stinted at two shillings and six-pence the bushel, and tobacco at three shillings the pound, and they value a man's labour a year worth fifty or threescore pounds, but in corn not worth ten pounds, presuming tobacco will furnish them with all things; now make a man's labour in corn worth threescore pounds, and in tobacco but ten pounds a man, then shall they have corn sufficient to entertain all comers, and keep their people in health to do any thing; but till then there will be little or nothing to any purpose.

Quest. 3. What conceive you to have been the cause of the massacre; and had the savages had the use of any pieces in your time, or when, or by whom they were taught?

Answ. The cause of the massacre was the want of martial discipline, and because they would have all the English had by destroying those they found so carelessly secure, that they were not provided to defend themselves against any enemy, being so dispersed as they were. In my time, though Captain Nuport furnished them with swords by truck, and many fugitives did the like, and some pieces they got accidentally, yet I got the most of them again, and it was death to him that should shew a savage the use of a piece. Since, I understand, they became so good shot, they were employed for fowlers and huntsmen by the English.

Quest. 4. What charge think you would have settled the government both for defence and planting when you left it?

Answ. Twenty thousand pounds would have hired good labourers and mechanical men, and have furnished them with cattle and all necessaries, and one hundred of them would have done more than a thousand of those that went, though the Lord La Ware, Sir Ferdinando Waynman, Sir Thomas Gates, and Sir Thomas Dale were persuaded to the contrary; but when they had tried, they confessed their error.

Quest. 5. What conceive you would be the remedy and the charge?

Answ. The remedy is to send soldiers and all sorts of labourers and necessaries for them, that they may be there by next Michaelmas; the which to do well will stand you in five thousand pounds: but if His Majesty would please to lend two of his ships to transport them, less would serve, besides the benefit of his grace to the action would encourage all men.

Quest. 6. What think you are the defects of the government both here and there?

Answ. The multiplicity of opinions here, and officers there, makes such delays by questions and formality, that as much time is spent in compliment as in action; besides,

besides, some are so desirous to employ their ships, having six pounds for every passenger, and three pounds for every ton of goods, at which rate a thousand ships may now better be procured than one at the first, when the common stock defrayed all freights, wages, provisions and magazines, whereby the ships are so pestered, as occasions much sickness, diseases and mortality; for though all the passengers die they are sure of their freight; and then all must be satisfied with orations, disputations, excuses and hopes. As for the letters of advice from hence, and their answers thence, they are so well written, men would believe there were no great doubt of the performance, and that all things were well, to which error here they have been ever much subject; and there not to believe, or not to relieve the true and poor estate of that colony, whose fruits were commonly spent before they were ripe, and this loss is nothing to them here, whose great estates are not sensible of the loss of their adventures, and so they think, or will not take notice; but it is so with all men, but howsoever they think or dispose of all things at their pleasure, I am sure not myself only, but a thousand others have not only spent the most of their estates, but the most part have lost their lives and all, only but to make way for the trial of more new conclusions, and he that now will adventure but twelve pounds ten shillings shall have better respect and as much favour than he that sixteen years ago adventured as much, except he have money as the other hath, but though he have adventured five hundred pounds, and spent there never so much time, if he have no more and not able to begin a family of himself, all is lost by order of court.

But in the beginning it was not so, all went then out of one purse, till those new devices have consumed both money and purse, for at first there were but six patentees, now more than a thousand, then but thirteen counsellors, now not less than an hundred; I speak not of all, for there are some both honourable and honest, but of those officers, which did they manage their own estates no better than the affairs of Virginia, they would quickly fall to decay so well as it; but this is most evident, few officers in England it hath caused to turn bankrupts, nor for all their complaints would leave their places, neither yet any of their officers there, not few of the rest but they would be at home, but fewer adventurers here will adventure any more till they see the business better established, although there be some so wilfully improvident they care for nothing but to get thither, and then if their friends be dead, or want themselves, they die or live but poorly for want of necessaries, and to think the old planters can relieve them were too much simplicity, for who here in England is so charitable to feed two or three strangers, have they never so much, much less in Virginia where they want for themselves. Now the general complaint saith, that pride, covetousness, extortion and oppression in a few that engrosses all, than sell all again to the commonalty at what rate they please, yea, even men, women and children, for who will give most occasions no small mischief amongst the planters.

As for the company, or those that do transport them, provided of necessaries, God forbid but they should receive their charges again with advantage, or that masters there should not have the same privilege over their servants as here, but to sell him or her for forty, fifty, or threescore pounds, whom the company hath sent over for eight or ten pounds at the most, without regard how they shall be maintained with apparel, meat, drink, and lodging, is odious, and their fruits suitable; therefore such merchants it were better they were made such merchandize themselves than suffered any longer to use that trade, and those are defects sufficient to bring a well settled commonwealth to misery, much more Virginia.

Quest. 7. How think you it may be rectified?

Answ.

Anfw. If His Majesty would please to entitle it to his crown, and yearly that both the governors here and there may give their accounts to you, or some that are not engaged in the business, that the common stock be not spent in maintaining one hundred men for the governor, one hundred for two deputies, fifty for the treasurer, five-and-twenty for the secretary, and more for the marshal and other officers who were never there nor adventured any thing, but only preferred by favour to be lords over them that broke the ice and beat the path, and must teach them what to do; if any thing happen well it is their glory; if ill, the fault of the old directors, that in all dangers must endure the worst, yet not five hundred of them have so much as one of the others; also that there be some present course taken to maintain a garrison to suppress the savages, till they be able to subsist, and that His Majesty would please to remit his custom, or it is to be feared they will lose custom and all, for this cannot be done by promises, hopes, counsels, and countenances, but with sufficient workmen and means to maintain them, nor such delinquents as here cannot be ruled by all the laws in England, yet when the foundation is laid, as I have said, and a commonwealth established, then such there may better be constrained to labour than here: but to rectify a commonwealth with debauched people is impossible, and no wise man would throw himself into such a society, that intends honestly, and knows what he undertakes, for there is no country to pillage as the Romans found: all you expect from thence must be by labour.

For the government I think there is as much ado about it as the kingdoms of Scotland and Ireland, men here conceiting Virginia as they are, erecting as many stately offices as officers with their attendants, as there are labourers in the country, where a constable were as good as twenty of their captains, and three hundred good soldiers and labourers better than all the rest that go only to get the fruits of other men's labours by the title of an office. Thus they spend Michaelmas rent in Midsummer moon, and would gather their harvest before they have planted their corn.

As for the maintenance of the officers, the first that went never demanded any, but adventured good sums; and it seems strange to me, the fruits of all their labours, besides the expence of an hundred and fifty thousand pounds, and such multitudes of people, those collateral officers could not maintain themselves so well as the old did, and having now such liberty to do to the savages what they will, the others had not. I more then wonder they have not five hundred savages to work for them towards their general maintenance, and as many more to return some content and satisfaction to the adventurers, that for all their care, charge and diligence, can hear nor see nothing but miserable complaints; therefore under your correction to rectify all, is with all expedition to pass the authority to them who will relieve them, lest all be consumed ere the differences be determined. And except His Majesty undertake it, or by act of parliament some small tax may be granted throughout his dominions, as a penny upon every poll, called a head-penny; two pence upon every chimney, or some such collection might be raised; and that would be sufficient to give a good stock, and many servants to sufficient men of any faculty, and transport them freely for paying only homage to the Crown of England, and such duties to the public good as their estates increased, reason should require. Were this put in practice, how many people of what quality you please, for all those disasters would yet gladly go to spend their lives there, and by this means more good might be done in one year, than all those petty particular undertakings will effect in twenty.

For the patent the King may, if he please, rather take it from them that have it, than from us who had it first, pretending to His Majesty what great matters they would do,

do, and how little we did, and for any thing I can conceive, had we remained still as at first, it is not likely we could have done much worse; but those oft altering of governments are not without much charge, hazard, and loss. If I be too plain, I humbly crave your pardon; but you requested me, therefore I do but my duty. For the nobility, who know not how freely both in their purses and assistance many of them have been to advance it, committing the managing of the business to inferior persons, amongst whom questionless also many have done their utmost best, sincerely and truly according to their conceit, opinion, and understanding; yet gross errors have been committed: but no man lives without his faults; for my own part, I have so much ado to amend my own, I have no leisure to look into any man's in particular, but those in general I conceive to be true. And so I humbly rest,

Your's to command,

I. S.

Thus those discords, not being to be compounded among themselves, nor yet by the extraordinary diligence, care and pains of the noble and right worthy commissioners, Sir William Jones, Sir Nicholas Fortescue, Sir Francis Goston, Sir Richard Sutton, Sir Henry Bourghier, and Sir William Pitt; a corante was granted against Mr. Deputy Farrar, and twenty or thirty others of that party, to plead their causes before the right honourable the lords of His Majesty's privy council: now notwithstanding all the relations, examinations, and intercepting of all letters whatsoever come from thence, yet it seems they were so far unsatisfied, and desired to know the truth, as well for the preservation of the colony, as to give content and do all men right, they sent two commissioners strictly to examine the true state of the colony. Upon whose return, after mature deliberation, it pleased His Royal Majesty to suppress the course of the court at Deputy Farrars, and that for the present ordering the affairs of Virginia, until he should make a more full settlement thereof, the Lord Viscount Mandevile, lord president of His Majesty's privy council, and also other privy councillors, with many understanding knights and gentlemen, should every Thursday in the afternoon meet at Sir Thomas Smith's, in Philpot-lane, where all men whom it should concern may repair, to receive such directions and warrant for their better security, as more at large you may see in the proclamation to that effect, under the great seal of England, dated the 15th of July 1624. But as for the relations last returned, what numbers they are, how many cities, corporations, towns, and houses, cattle and horses they have, what fortifications or discoveries they have made, or revenge upon the savages; who are their friends or foes, or what commodities they have more than tobacco, and their present estate, or what is presently to be put in execution, in that the commissioners are not yet fully satisfied in the one, nor resolved in the other, at this present time when this went to the press, I must entreat you pardon me till I be better assured.

Thus far I have travelled in this wilderness of Virginia, not being ignorant for all my pains this discourse will be wrested, tossed and turned as many ways as there is leaves; that I have writ too much of some, too little of others, and many such like objections. To such I must answer, in the Company's name I was requested to do it: if any have concealed their approved experience from my knowledge, they must excuse me; as for every fatherless, or stolen relation, or whole volumes of sophisticated rehearsals, I leave them to the charge of them that desire them. I thank God I never undertook any thing yet any could tax me of carelessness or dishonesty; and what is he to whom I am indebted or troublesome? Ah! were these my accusers but to change cases and places with me but two years, or till they had done but so much as I, it may

be they would judge more charitably of my imperfections. But here I must leave all to the trial of time, both myself, Virginia's preparations, proceedings, and good events, praying to that great God, the protector of all goodness, to send them as good success as the goodness of the action and country deserveth, and my heart desireth.

BOOK V.

The general History of the Bermudas, now called the Summer Isles, from their beginning, in the Year of our Lord 1593, to this present 1624, with their Proceedings, Accidents, and present Estate.

BEFORE we present you the matters of fact, it is fit to offer to your view the stage whereon they were acted, for as geography without history seemeth a carcase without motion, so history without geography, wandereth as a vagrant without a certain habitation. Those islands lie in the huge main ocean, and two hundred leagues from any continent, situated in 32 degrees and 25 minutes of northerly latitude, and distant from England west-south-west, about three thousand three hundred miles, some twenty miles in length, and not past two miles and a half in breadth, environed with rocks, which to the northward, westward, and south-east, extend further than they have been yet well discovered: by reason of those rocks the country is naturally very strong, for there is but two places, and scarce two, unless to them who know them well, where shipping may safely come in, and those now are exceeding well fortified, but within is room to entertain a royal fleet: the rocks in most places appear at low water, neither are they much covered at high, for it ebbs and flows not past five feet; the shore for most part is a rock, so hardened with the sun, wind, and sea, that it is not apt to be worn away with the waves, whose violence is also broke by the rocks before they can come to the shore; it is very uneven, distributed into hills and dales; the mould is of divers colours, neither clay nor sand, but a mean between; the red which resembleth clay is the worst, the whitest resembling sand, and the blackest is good, but the brown betwixt them both, which they call white, because there is mingled with it a white meal, is the best: under the mould two or three feet deep, and sometimes less, is a kind of white hard substance, which they call the rock: the trees usually fasten their roots in it; neither is it indeed rock or stone, or so hard, though for most part harder than chalk; nor so white, but pumish-like and spongy, easily receiving and containing much water. In some places, clay is found under it; it seems to be engendered with rain water, draining through the earth, and drawing with it of his substance unto a certain depth, where it congeals; the hardest kind of it lies under the red ground like quarries, as it were thick slates one upon another, through which the river hath its passage; so that in such places there is scarce found any fresh water, for all or the most part of the fresh water cometh out of the sea draining through the sand, or that substance called the rock, leaving the salt behind, it becomes fresh: sometimes we dug wells of fresh water, which we find in most places, and but three or four paces from the sea side; some further, the most part of them would ebb and flow as the sea did, and be level or little higher than the superficies of the sea, and in some places very strange, dark, and cumbersome caves.

The air is most commonly clear, very temperate, moist, with a moderate heat, very healthful, and apt for the generation and nourishing of all things, so as many things transported from hence yield a far greater increase, and if it be any living thing, it be-

comes fatter and better; by this means, the country is so replenished with hens and turkies, within the space of three or four years, that many of them being neglected, forsake the houses, and become wild, and so live in great abundance; the like increase there is in hogs, tame conies, and other cattle, according to their kinds. There seems to be a continual spring, which is the cause some things come not to that maturity and perfection as were requisite; and though the trees shed their leaves, yet they are always full of green; the corn is the same they have in Virginia and the West-Indies: of this and many other things without plowing or much labour, they have two harvests every year, for they set about March, which they gather in July; and again in August, which they reap in December; and little slips of fig-trees and vines do usually bear fruit within the year, and sometimes in less; but we find not the grapes as yet come to any perfection; the like fertility it hath in oranges and lemons, pomegranates, and other things. Concerning the serenity and beauty of the sky, it may as truly be said of those islands as ever it was said of the Rhodes, that there is no one day throughout the twelve months, but that in some hour thereof, the sun looks singularly and clear upon them, for the temperature it is beyond all others most admirable; no cold there is beyond an English April, nor heat much greater than an ordinary July in France, so that frost and snow is never seen here, nor stinking and infectious mists very seldom, by reason of the main ocean, there is some wind stirring that cools the air; the winter they have observes the time with ours, but the longest days and nights are shorter than ours almost by two hours.

We found it at first all overgrown with weeds and plants of several kinds, as many tall and goodly cedars, infinite store of palmetoes, numbers of mulberries, wild olive-trees store, with divers others, unknown both by name and nature, so that as they become lost to many useful employments, which time and industry, no doubt, will one day discover, and even already certain of the most notorious of them have gotten them appellations from their apparent effects, as the prickly-pear which grows like a shrub by the ground, with broad thick leaves, all over armed with long and sharp dangerous thorns, the fruit being in form not much unlike a small green pear, and on the outside of the same colour, but within blood red, and exceeding full of juice, with grains not much unlike the pomegranate, and colouring after its nature. The poisoned weed is much in shape like our English juy, but being but touched, causeth redness, itching, and lastly, blisters, the which, howsoever, after a while pass away of themselves, without further harm; yet because for the time they are somewhat painful, it hath got itself an ill name, although questionless of no ill nature. Here is also frequently growing a certain tall plant, whose stalk being all over covered with a red rind, is thereupon termed the red weed, the root whereof being soaked in any liquor, or but a small quantity of the juice drunk alone, procures a very forcible vomit, and yet is generally used by the people, and found very effectual against the pains and distempers of the stomach.

A kind of woodbine there is likewise by the sea very commonly to be found, which runs upon trees, twining itself like a vine; the fruit somewhat resembles a bean, but somewhat flatter, the which, any way eaten, worketh excellently in the nature of a purge, and though very vehemently, yet without all peril. Contrary to this, another small tree there is, which causeth costiveness: there is also a certain plant like a bramble-bush, which bears a long yellow fruit, having the shell very hard, and within it a grey berry, that beaten and taken inwardly purgeth gently. There is another fruit, much like our barberries, which being beaten or bruised between the teeth, sets all the mouth on an extreme heat, very terrible for the time; to avoid which, they are swallowed
down

down whole, and found of the same or better operation than the red pepper, and thence borroweth the name. In the bottom of the sea, there is growing upon the rocks a large kind of plant, in the form of a vine-leaf, but far more spread with veins, in colour of a pale red, very strangely interlaced and woven one in another, which we call the feather, but the virtue thereof is altogether unknown, but only regarded for the rarity. Now besides these natural productions, providences, and pains, since the plantation, have offered divers other seeds and plants, which the soil hath greedily embraced and cherished, so that at this present 1623, there are great abundance of white, red, and yellow coloured potatoes, tobacco, sugar-canes, indigos, parsnips, exceeding large radishes, the American bread, the cassado-root, the Indian pumpeon, the water-melon, musk-melon, and the most delicate pine-apples, plantains, and papaws; also the English artichoke, pease, &c.; briefly, whatsoever else may be expected for the satisfaction either of curiosity, necessity, or delight.

Neither hath the air for her part been wanting with due supplies of many sorts of fowls, as the grey and white hearn, the grey and green plover, some wild ducks and mallard, coots, and red-shanks, sea-widgeons, grey bitterns, cormorants, numbers of small birds, like sparrows and robins, which have lately been destroyed by the wild cats, wood-peckers, very many crows, which since this plantation are killed, the rest fled, or seldom seen, except in the most uninhabited places, from whence they are observed to take their flight about sun-set, directing their course towards the north-west, which makes many conjecture there are some more islands not far off that way. Sometimes are also seen falcons and jar-falcons, osprays, a bird like a hobby, but because they come seldom, they are held but as passengers; but above all these, most deserving observation and respect, are those two sorts of birds, the one for the tone of his voice, the other for the effect, called the cahow and egg-bird, which on the first of May, a day constantly observed, fall a laying infinite store of eggs, near as big as hens', upon certain small sandy bays, especially in Couper's Isle; and although men sit down amongst them when hundreds of them have been gathered of a morning, yet there is hath staid amongst them till they have gathered as many more: they continue this course till Midsummer, and so tame and fearless, you must thrust them off from their eggs with your hand; then they grow so faint with laying, they suffer them to breed, and take infinite numbers of their young to eat, which are very excellent meat.

The cahow is a bird of the night, for all the day she lies hid in holes in the rocks, where they and their young are also taken with as much ease as may be, but in the night if you but whoop and hollow, they will light upon you, that with your hands you may chuse the fat and leave the lean; those they have only in winter; their eggs are as big as hens', but they are speckled, the other white. Mr. Norwood hath taken twenty dozen of them in three or four hours, and since there hath been such havock made of them, they were near all destroyed, till there was a strict inhibition for their preservation. The tropick bird is white, as large as a pullet, with one only long feather in her tail, and is seldom seen far distant from other of the tropicks: another small bird there is, because she cries *pemblyco*, they call her so; she is seldom seen in the day but when she sings, as too oft she doth very clamorously, too true a prophet she proves of huge winds and boisterous weather: there were a kind of small owls in great abundance, but they are now all slain or fled: some tame ducks, geese and pigeons there are; but the two latter prosper not.

Concerning vermin and noisome creatures there are not many, but only rats and cats, there increased since the plantation; but how they agree together you shall hear hereafter. The musketos and flies are also too busy, with a certain India bug, called by the

the Spaniards, a cacarootch, the which creeping into chests they eat and defile with their ill-scented dung : also the little ants in summer time are so troublesome they are forced to dry their figs upon high frames, and anoint their feet with tar, wherein they stick, else they would spoil them all ere they could be dried : worms in the earth also there are, but too many, so that to keep them from destroying their corn and tobacco, they are forced to worm them every morning, which is a great labour, else all would be destroyed. Lizards there were many and very large, but now none ; and it is said they were destroyed by the cat. Certain spiders also of very large size are found hanging upon trees, but instead of being any way dangerous as in other places, they are here of a most pleasing aspect, all over drest as it were with silver, gold, and pearl, and their webs in the summer woven from tree to tree, are generally a perfect raw silk, and that as well in regard of substance as colour, and so strong withal, that divers birds bigger than black-birds, being like snipes, are often taken and snared in them as a net : then what would the silk-worm do were she there to feed upon the continual green mulberry ?

But above all the rest of the elements, the sea is found most abundantly liberal : hence have they as much excellent fish, and as much variety as need be desired. The most of which being unknown to our northern parts, got there new names, either for their shapes or conditions ; as the large rock-fish from his like hue, and haunting amongst the rocks ; the fat hog-fish from his swine-like shape and snout, for this is not the old known hog-fish with brussels on his back ; the delicate amber-fish from his taste and smell, angel-fish, cony-fish, the small yellow tail from that natural painting ; the great grouper from his odd and strange grunting, some of them yet known to the Americans, as the purgoose, the cavallo, the gar-fish, flying-fish and morerays : the rest are common to other continents ; as the whale in great numbers, the shark, the pilot-fish, the sea-bream, the oyster and lobster, with divers others ; twenty tortoises have been taken in a day, and some of them will afford half a bushel of eggs, and suffice to feed forty men at a meal. And thus have you briefly epitomized mother Nature's benefits to this little, yet dainty, spot of earth, neither were it ingenuity to conceal wherein she inclineth to the stepdame, especially since the particulars are so few, as rather requisite antidotes against idleness to rouse up industry, than any great cause of much distaste, much less despair ; and of those, to speak truth, there are only two, viz. the winds, and the worms, especially in the spring and autumn ; and thus conditioned as yet we will let rest these small islands, in the midst of this mighty and main ocean, so environed on every side by infinite numbers of uncertain scattered rocks, lying shallowly hid under the surface of the water, a league, two, three, four, or five, to sea, to the which advantages added by art, as hereafter you shall hear at large, and find described in the map. It may well be concluded to be the most impregnable place in the world, and although the amber-gris, pearls, nor tobacco ; are of that quantity and certainty to be relied upon to gain wealth, yet by practice and experience they find, by silk, saffron, indigo, madar, sugar-canes, wine, oil, and such like, great profit may be expected : yet were those hopeless in regard of their conveniency to nourish and maintain themselves and relieve them shall visit them with wood, water, and other necessaries ; besides what an eye-sore they are already become to them that have them not, and how dear and precious to them that have them, I think none will deny but they are well worth the keeping : and so we will proceed to the accidents that befell the first finders : also the proceedings of the first planters and their successors, Mr. Norrod, Thomas Sparkes, and divers others.

A brief

A brief Relation of the Shipwreck of Henry May.

HOW these isles came by the name of Bermudas, or the infinite number of black hogs, or so fearful to the world, that many called them the Isle of Devils, that all men did shun as hell and perdition; I will not expostulate, nor trouble your patience with those uncertain antiquities further than thus; our men found divers crosses, pieces of Spanish monies here and there. Two or three wrecks also they found by certain inscriptions to be some Spanish, some Dutch, some French; but the greatest rumour is, that a Spanish ship, called Bermudas, was there cast away, carrying hogs to the West Indies, that swam ashore, and there increased: how the Spaniards escaped is uncertain; but they say, from that ship those isles were first called Bermudas, which till then for six thousand years had been nameless.

But the first Englishman that was ever in them was one Henry May, a worthy mariner that went with Captain Lancaster to the East Indies 1591; and in their return by the West Indies, being in some distress, sent this Henry May for England by one Monsieur de la Barbotier, to acquaint the merchants with their estate. The last of November, saith May, we departed from Laguna in Hispaniola, and the 17th of December following we were cast away upon the north-west of the Bermudas; the pilots about noon made themselves southwards of the isles twelve leagues, and demanded of the captain their wine of hight as out of all danger, which they had; but it seems they were either drunk, or careless of their charge, for through their negligence a number of good men were cast away. I being but a stranger amongst fifty and odd Frenchmen, it pleased God to appoint me to be one of those should be saved. In this extremity we made a raft, which we towed with our boat; there were but six-and-twenty of us saved; and I seeing scarce room for the one half, durst not pass in amongst them till the captain called me along with him, leaving the better half to the sea's mercy: that day we rowed till within two hours of night ere we could land, being near dead with thirst, every man took his way to seek fresh water; at length, by searching amongst many weeds, we found some rain water; but in the main are many fair bays, where we had enough for digging.

Now it pleased God before our ship split we saved our carpenter's tools, some nails, sails, and tacklings, wherewith we went roundly to work, and built a bark of eighty tons: instead of pitch, we made lime, mixed with tortoise oil, and as the carpenters caulked her, I and another paid the seams with this plaster, which being in April, became quickly dry, and as hard as a stone.

In April it was so hot we feared our water would fail, two great chests we made, which we caulked as our ship; those we stowed on each side our main-mast, filled them with water and thirty live tortoises; we found many hogs, but so lean we could not eat them; the tops of the palmetaberries was our bread, and the juice we got out of the trees we cut down our drink, and of the leaves, which are more than an ell long, we covered our cabins, and made our beds, and found many of those provisions as is related, but little foul weather. The eleventh of May it pleased God to set us clear of the isle, after we had lived there five months; and the 20th we fell in with Cape Breton, near Newfoundland, where refreshing ourselves with wood and water, and such things as we could get of the savages, it seemed a good country; but we staid not past four hours before we set sail for the banks of Newfoundland, where we met many ships, but not any would take in a man of us, until it pleased God we met a bark of Falmouth, which received us for a little time, and with her we took a French ship, wherein

wherein I left Captain de la Barbotier, my dear friend, and all his company, and in August arrived at Falmouth, in this honest English bark, 1594.

Written by me HENRY MAY.

The first English Ship known to have been cast away upon the Bermudas 1609. From the Relation of Mr. Jordan, Mr. John Evans, Mr. Henry Shelly, and divers others.

YOU have heard that when Captain Smith was governor of Virginia, there were nine ships sent with Sir Thomas Gates, and Sir George Somers, and Captain Newport with five hundred people, to take in the old commission, and rectify a new government; they set sail in May, and in the height of thirty degrees of northerly latitude, they were taken with an extreme storm, or rather a part of hericano, upon the five-and-twentieth of July, which, as they write, did not only separate them from the fleet, but with the violent working of the seas, their ship became so shaken, torn, and leaky, she received so much water as covered two tier of hogsheds above the ballast, that they stood up to the middles with buckets, baricos, and kettles, to bail out the water. Thus bailing and pumping three days and three nights without intermission, and yet the water seemed rather to encrease than diminish, insomuch that being all utterly spent with labour, were even resolved without any hope to shut up the hatches, and commit themselves to the mercy of the sea, which is said to be merciless, or rather to the mercy of Almighty God, whose mercy far exceeds all his works; seeing no sense or hope in man's apprehension, but presently to sink; some having some good and comfortable waters, fetched them, and drank one to another, as taking their last leaves until a more happy and a more joyful meeting in a more blessed world, when it pleased God out of his most gracious and merciful providence, so to direct and guide their ship for her most advantage.

That Sir George Somers all this time sitting upon the poop, scarce taking leisure to eat nor sleep, coving the ship to keep her as upright as he could, otherwise she must long ere that needs have foundered, most wishedly and happily descried land; whereupon he most comfortably encouraged them to follow their work, many of them being fast asleep: this unlooked-for welcome news, as if it had been a voice from Heaven, hurried them all above hatches, to look for that they durst scarce believe, so that improvidently forsaking that task which imported no less than their lives, they gave so dangerous advantage to their greedy enemy the salt water, which still entered at the large breaches of their poor wooden castle, as that in gaping after life, they had well-nigh swallowed their death. Surely it is impossible any should now be urged to do his best, and although they knew it, that place all men did so shun, yet they spread all the sail they could to attain them: for not long it was before they struck upon a rock, till a surge of the sea cast her from thence, and so from one to another, till most luckily at last so upright betwixt two, as if she had been in the stocks, till this they expected but every blow a death; but now behold, suddenly the wind gives place to a calm, and the billows, which each by overtaking her, would in an instant have shivered her in pieces, become peaceable and still, so that with all conveniency and ease, they unshipped all their goods, victuals, and persons into their boats, and with extreme joy, even almost to amazedness, arrived in safety, though more than a league from the shore, without the loss of a man; yet were they in all one hundred and fifty; yet their deliverance was not more strange in falling so happily upon the land, as their feeding and preservation was beyond their hopes; for you have heard, it hath been to the

Spaniards more fearful than an Utopian purgatory, and to all seamen no less terrible than an enchanted den of furies and devils, the most dangerous, unfortunate, and forlorn place in the world, and they found it the richest, healthfullest, and pleasantest they ever saw, as is formerly said.

Being thus safe on shore, they disposed themselves to search the isles for food and water; others to get ashore what they could from the ship: not long Sir George wandered but found such a fishing, that in half an hour, with a hook and line, he took so many as sufficed the whole company; in some places they were so thick in the coves, and so great, they durst not go in lest they should bite them; and these rock-fish are so great that two will load a man, and fatter nor better fish cannot be. Mr. Shelly found a bay near a quarter of a mile over, so full of mullets, as none of them before had ever seen or heard of the like. The next day seeking to kill them with fis-gigs, they struck so many, the water in many places was red with blood, yet caught not one, but with a net they caught so many as they could draw ashore, with infinite number of pilchards and divers other sorts; great craw-fishes, in a night by making a fire, they have taken in great quantity. Sir George had twice his hook and line broke out of his hand, but the third time he made it so strong he caught the same fish, which had pulled him into the sea, had not his men got hold of him, whereby he had his three hooks again which were found in her belly. At their first hunting for hogs they found such abundance, they killed thirty-two; and this hunting and fishing was appointed to Captain Robert Walsingham and Mr. Henry Shelly, for the company in general; they report they killed at least five hundred, besides pigs, and many that were killed by divers others; for the birds in their seasons, the facility to make their cabins of palmeta leaves, caused many of them utterly forget or desire ever to return from thence, they lived in such plenty, peace and ease.

But let us remember how the knights began to resolve in those desperate affairs: many projects they had, but at last it was concluded to deck their long-boat with their ship-hatches; which done, with all expedition they sent Mr. Raven, a very sufficient mariner, with eight more in her, to Virginia, to have shipping from thence to fetch them away; three weeks or a month they expected her return, but to this day she was never more heard of: all this time was spent in searching the isles. Now, although God still fed them with this abundance of plenty, yet such was the malice of envy or ambition, for all this good service done by Summers, such a great difference fell amongst their commanders, that they lived asunder in this distress, rather as mere strangers than distressed friends. But necessity so commanded; patience had the victory.

Two ships at this time by those several parties were building; in the mean time two children were born; the boy was called Bermudas; the girl Bermuda, and amongst all those sorrows they had a merry English marriage. The form of those isles you may see at large in the map of Mr. Norwood, where you may plainly see no place known hath better walls, nor a broader ditch. But having finished and rigged their two new cedar ships with such provisions they saved from the Sea-adventurer, they left amongst the rocks, they called the one the Patience, the other the Deliverance: they used lime and oil, as May did, for pitch and tar. Sir George Summers had in his bark no iron at all, but one bolt in her keel. Now having made their provisions of victuals, and all things ready, they set sail the 10th of May 1610, only leaving two men behind them, called Christopher Carter and Edward Waters, that for their offences, or the suspicion they had of their judgment, fled into the woods, and there rather desired to end their days, than stand to their trials and the event of justice; for one of their

conforts was shot to death, and Waters being tied to a tree, also to be executed, had by chance a knife about him, and so secretly cut the rope, he ran into the woods, where they could not find him. There were two savages also sent from Virginia by Captain Smith, the one called Namuntack, the other Matchumps; but some such differences fell between them, that Matchumps slew Namuntack, and having made a hole to bury him, because it was too short, he cut off his legs and laid them by him; which murder he concealed till he was in Virginia.

The 24th of the same month they arrived in Virginia, at James Town, where they found but threescore persons, as you may read at large in the History of Virginia, of the five hundred left by Captain Smith; also of the arrival of Lord La Ware, that met them thus bound for England, returned them back, and understanding what plenty there was of hogs and other good things in the Bermudas, was desirous to send thither to supply his necessary occasions; whereupon Sir George Summers, the best acquainted with the place, whose noble mind ever regarded a general good more than his own ends, though above threescore years of age, and had means in England suitable to his rank, offered himself, by God's help, to perform this dangerous voyage again for the Bermudas, which was kindly accepted; so upon the 19th of June he embarked in his cedar ship, about the burthen of thirty tons, and so set sail.

Much foul and cross weather he had, and was forced to the north parts of Virginia, where refreshing himself upon this unknown coast, he could not be diverted from the search of the Bermudas, where at last, with his company, he safely arrived. But such was his diligence with his extraordinary care, pains, and industry to dispatch his business, and the strength of his body not answering the ever-memorable courage of his mind, having lived so long in such honourable services, the most part of his well-beloved and virtuous life, God and nature here determined should ever remain a perpetual memory of his much-bewailed sorrow for his death. Finding his time but short, after he had taken the best course he could to settle his estate, like a valiant captain, he exhorted them with all diligence to be constant to those plantations, and with all expedition to return to Virginia. In that very place which we now call Saint George's Town, this noble knight died, whereof the place taketh the name. But his men, as men amazed, seeing the death of him who was even as the life of them all, embalmed his body, and set sail for England, being the first that ever went to seek those islands, which have been ever since called Summer's Isles, in honour of his worthy memory, leaving three men behind them, that voluntarily staid, whose names were Christopher Carter, Edward Waters, there formerly left, as is said, and Edward Chard. This cedar ship at last, with his dead body, arrived at Whitchurch in Dorsetshire, where, by his friends, he was honourably buried, with many volleys of shot, and the rites of a soldier, and upon his tomb was bestowed this epitaph:

*Hei mihi Virginia quod tam cito præterit æstas,
Autumnus sequitur, sæviet inde & hiems;
At ver perpetuum nascetur, & Anglia læta,
Decerpit flores florida terra tuas.*

In English thus:

*Alas, Virginia's summer so soon past,
Autumn succeeds and stormy winter's blast,
Yet England's joyful spring with joyful showers,
O Florida, shall bring thy sweetest flowers.*

The honour of this resolution belongs principally to Carter, for through his importunity not to leave such a place abandoned, Chard and Waters were moved to stay with

with him, and the rest promised, with all the speed they could, again to revisit them. But the ship once out of sight, those three lords, the sole inhabitants of all those islands, began to erect their little commonwealth for a while with brotherly regency, repairing the ground, planting corn and such seeds and fruits as they had, building a house, &c. Then making privy search amongst the crevices and corners of those craggy rocks, what this main ocean since the world's creation had thrown amongst them, at last they chanced upon the greatest piece of ambergris that was ever seen or heard of in one lump, being in weight fourscore pounds, besides divers other small pieces.

But now being rich, they grew so proud and ambitious, contempt took such place, they fell out for superiority, though but three forlorn men, more than three thousand miles from their native country, and but small hope ever to see it again. Notwithstanding, they sometimes fell from words to blows about mere trifles; in one of which fights one of them was bitten by his own dog, as if the dumb beast would reprove them of their folly: at last Chard and Waters, the two greater spirits, must try it out in the field; but Carter wisely stole away their weapons, affecting rather to live among his enemies, than by being rid of them live alone: and thus those miserable men lived full two years, so that all their clothes were near worn clean from their backs, and their hopes of any foreign relief as naked as their bodies. At last they began to recover their wits, yet in a fashion perhaps would have cost them dearer than when they were mad; for concluding a tripartite peace of their Matachin war, they resolved to frame as good a boat as they could, and therein to make a desperate attempt for Virginia, or Newfoundland; but no sooner were they entered into that resolution, but they descried a sail standing in for the shore, though they neither knew what she was, nor what she would, they were so overjoyed, with all possible speed they went to meet her, and according to their hearts' desire she proved an Englishman, whom they safely conducted into their harbour.

Now you are to understand, that Captain Matthew Summers, nephew and heir to Sir George, that returned with his dead body, though both he and his company did their utmost in relating all those passages to their countrymen and adventurers, their relations were believed but as travellers' tales, till it came to be apprehended by some of the Virginia Company how beneficial it might be, and helpful to the plantation in Virginia, so that some one hundred and twenty of them bought the pretended right of all the Company, and had sent this ship to make a trial; but first they had obtained letters patents of the King's most Excellent Majesty. Sir Thomas Smith was elected treasurer and governor here, and Mr. Richard More to be governor of the isles and colony there.

The first beginning of a Colony in the Summer Isles, under the command of Mr. Richard More, extracted out of a Plot of Mr. Richard Norwood, Surveyor, and the Relations of divers others.

MR. MORE thus finding those three men not only well and lusty, but well stored with divers sorts of provisions, as an acre of corn ready to be gathered, numbers of pumpeons and Indian beans, many tortoises ready taken, good store of hogs' flesh salted, and made in flitches of bacon, were very good; and so presently landed his goods and sixty persons towards the beginning of July 1612, upon the south side of Smith's Isle.

Not long after his arrival, More having some private intelligence of this ambergris, took first Chard in examination, he being one of the three the most masterful spirit, what

what ambergris, pearls, treasure, or other commodities they had found. Chard no less witty than resolute, directly answered, not any thing at all but the fruits of the isle, what his fellows had done he knew not, but if they had, he doubted not but to find it out, and then he should know it certainly. This he spoke only to win time to swear his comforts to secrecy, and he would find the means how they should all return in that ship with it all for England, otherwise they should be deceived of all. Till this was effected they thought every hour an age; now for the better conveyance of it aboard, they acquainted it to Captain Davis, master of the ship, and one Mr. Edwin Kendall, that for their secrecy and transportation should participate with them: without further ceremony the match was accepted, and absolutely concluded, the plot laid, time and place set down to have it aboard. But Carter, were it for fear the governor at last should know of it, to whom so often they had denied it, or that the rest should deceive him, is uncertain, but most certain it is, he revealed all the plot to Mr. More: to get so much wealth he knew would please them in England, though it did displease all his company, and to lose such a prize he would not for hazarding a mutiny. So first he revealed himself to Kendall in fair terms, reproving his dishonesty; but not being answered according to his expectation, he committed both Chard and him to prison. The next Sabbath-day Davis coming on shore, More also taxed with very hard language and many threats, to lay him fast also if he mended not his manners; Davis for the present replied little, but went with him to the place of prayer, but in the midst of divine service he goeth away, commanding all his seamen to follow him presently aboard, where he encourageth them to stand to him like men, and he would free the prisoners, have all the ambergris for themselves, and so be gone.

The governor hearing of this resolution, prepares with his company to repulse force with force, so that a general expectance of a civil uncivil war possessed every man; but this threatening gust passed over more calmly than was expected, for Davis having better advised with himself, repented his rashness, and desired a reconciliation with the governor. Peace thus concluded, Kendall was set at liberty, but Chard was condemned, and upon the ladder to be hanged for his obstinacy; yet upon better consideration, More reprieved him, but kept him a prisoner all the time he staid in the country, which was generally thought a very bad reward for his great desert, and that there was more of this ambergris embezzled than would have contented all the finders, that never had any consideration at all. The greatest part though More thus recovered, yet Davis and Kendall had so much, either by the ignorance or connivency of the governors, that arriving in England, they prepared themselves for a new voyage; at last they two falling out, the company having notice thereof, so tormented them both, they gave over their voyage, and durst not be seen a long time after.

The governor, thus rid of the ship and those discontents, removed his seat from Smith's Isle to Saint George's, after he had fitted up some small cabins of palmata leaves for his wife and family, in that valley where now stands their prime town called Saint George's, he began to apply himself to fortify the country, and training his men in the exercise of arms; for although he was but a carpenter, he was an excellent artist, a good gunner, very witty and industrious: he built and laid the foundation of eight or nine forts, called the King's Castle, Charles Fort, Pembroke's Fort, Smith's Fort, Pagit's Fort, Gate's Fort, Warwick's Castle, Saint Katharine's Fort, &c. mounting in them all the ordnance he had, preparing the ground to build houses, plant corn, and such fruits as they had.

Being thus busied, and as the necessity of the time required, keeping his men somewhat hard at work, Mr. Keath his minister, were it by the secret provocation of some

drones that grew weary of their tasks, or his affection to popularity is not certain, but he begins to tax the governor in the pulpit, he did grind the faces of the poor, oppressing his Christian brethren with Pharoah's taxes. More finding this in short time might breed ill blood, called the company together and also the minister, urging them plainly to tell him wherein he had deserved those hard accusations: whereupon, with an universal cry they affirmed the contrary, so that Keath down of his knees to ask him forgiveness. But Mr. More kindly took him up, willing him to kneel to God, and hereafter be more modest and charitable in his speeches; notwithstanding two other discontents so upbraided More with that doctrine, and stood to maintain it, he impannelled a jury, with a great deal of seeming much ado he would hang them being condemned, one of them with the very fear fell into a dead palsy; so that the other was set at liberty, and proved after a very good labourer.

Many conclusions he tried about the Sea-Venture, the wreck of Sir George Summers, but he got only for his pains but two pieces of ordnance. Having framed a church of timber, it was blown down by a tempest, so that he built another in a more close place with palmeta leaves.

Before this year was expired, the adventurers sent them an adviso with thirty passengers and good provisions, to prepare with all expedition for their defence against the Spaniard, whom, they understood, ere long would visit them: this occasioned him to keep all his men together in that isle so hard at work, that wanting liberty to go abroad for food, living only on that they had, and expected daily to receive from England, they were so overtoiled, many fell sick, but none died. Very earnest this ship was to have all the ambergris, which Mr. More perceiving, was the chiefest cause of their coming, and that it was the only loadstone to draw from England still more supplies; for all the expers command sent from the company, he returned this ship but with the one-third part; so from thence she went to Virginia, and not long after arrived safely in England.

But before her return the company sent the Martha with sixty passengers more; they arrived in June with one Mr. Bartlet to survey the island, and the estate of the colony, with expers command for all the ambergris, but More perceiving him not as he would have him, and that the company began to mistrust him, would send no more but another third part, wherewith they returned, leaving a Frenchman to make trial of the mulberries for silk, but he did not bring any thing to perfection, excusing himself, they were not the right mulberries he expected. About this time they were in hope of a small crop of tobacco, but it was most spoiled for want of knowledge to use it. Now in England Mr. More became amongst the merchants marvellous distasteful, for the detaining so long the ambergris, which delays they so much abhorred, they forthwith dispatched the Elizabeth the second time and forty passengers, much rebuking More for so long detaining the ambergris, for the which, having now no more colourable excuses, he delivered it, wherewith the ship went to Virginia, and thence home. In this ship was brought the first potatoe roots, which flourished exceedingly for a time, till by negligence they were almost lost (all but two cast-away roots) that so wonderfully have increased, they are a main relief to all the inhabitants. This ship was not long gone but there came two Spanish ships, founding with their boat, which attempted to come in, but from the King's Castle Mr. More made but two shot, which caused them presently depart. Mark here the handy work of the Divine Providence, for they had but three quarters of a barrel of powder and but one shot more, and the powder by carelessness was tumbled down under the muzzles of the two pieces, were discharged, yet not touched with fire when they were discharged.

This

This fear thus past, appears another much worse, which was the extremity of famine; in this extremity God sent Captain Daniel Elfrid with a carvel of meal which a little relieved them, but brought with all so many rats, that within two years after near ruined all; now though Elfrid had deceived his friend Fisher of this carvel in the West Indies, they revenged Fisher's injury, for Elfrid had his passage for England, and they made use of all he had. Some two months after, came in the Blessing, with an hundred passengers; and two days after the Starre, with a hundred and fourscore more, amongst which were many gentlemen, as Mr. Lower for marshal, Mr. Barret, Mr. Felgate, and divers others; but very improper for what they undertook. Within fourteen days after came in the Margaret and two frigates, and in them one hundred and threescore passengers; also Mr. Bartlet came now expressly to divide the country into tribes, and the tribes into shares. But Mr. More finding no mention made of any part for himself nor all them with him, as he was promised in England, by no means would admit of any division, nor suffer his men from finishing their fortifications, which was so necessary, it was his main ambition to see that accomplished; but such unkindness grew betwixt this Mr. Bartlet and the governor, that the rude multitude with all the disdain they could devise caused Bartlet's return for England as he came. About this time William Millington was drawn into the sea by a fish, but never after ever seen.

The neglect of this division was very hardly conceited in England, so that Mr. More, grew more and more in dislike with the company; notwithstanding he followed the building of these forts so earnestly, neglecting planting of corn, till their store was near all consumed, whereby they became so feeble and weak, some would not, others could not go abroad to seek relief, but starved in their houses, and many that went abroad, through weakness were subject to be suddenly surpris'd with a disease called feagues; which was neither pain nor sickness, but as it were the highest degree of weakness, depriving them of power and ability from the execution of any bodily exercises, whether it were working, walking, or what else; being thus taken, if any presently gave them food, many times they straight recovered, yet some after a little rest, would be able to walk, but if they found not present succour, died.

About this time or immediately before, came in a company of ravens, which continued amongst them all the time of this mortality, and then departed, which for any thing known, neither before nor since were ever seen or heard of: this with divers other reasons, caused Mr. More to go out to sea, to see if he could discover any other islands, but he went not far ere ill weather forced him back; and it were a noble adventure of him would undertake to make more perfect, all the dangers are about the Summer Isles.

Thus famine and misery caused Governor More to leave all his works, and send them abroad to get what they could; one hundred and fifty of the most weak and sick he sent to Couper's Isle, where were such infinite numbers of the birds called cahowes, which were so fearless they might take so many as they would, and that admired abundance of fish, that the extremity of their gluttony was such, those heavenly blessings they so consumed and wasted by carelessness and surfeiting, many of them died upon those silly birds that offered themselves to the slaughter, which the governor understanding, caused them for change of air to be removed to Port Royal, and a company of fishers with a boat to relieve them with fish, but the gang grew so lazy the poor weaklings still died; they that remained killed the cattle they found in the isle, feigning the heat caused them to run into the sea and so were drowned; so that the governor sent again for them home, but some obtained leave still to live abroad; one amongst the rest hid himself in the woods, and lived only on wilks and land-crabs, fat and lusty many months, but most

of them being at Saint George's, ordinarily was taken one hundred and fifty or two hundred great fishes daily for their food; for want of hooks and lines, the smith made hooks of old swords, and lines of old ropes, but finding all those poor engines also decay, they sent one of the two frigates last left with them for England, to tell them of this misery. All which was now attributed to Mr. More's perverseness, who at first when he got the ambergris had not such a general applause, but now all the worst could possibly be suggested was too good for him; yet not knowing for the present how to send a better, they let him continue still, though his time was near expired, and with all speed sent the *Welcome* fraught with provision, where she well arrived, and proved herself as welcome in deed as in name; for all those extremities, Mr. Lewes Hues writeth, not one of all of those threescore that first began this plantation was dead, which shews it was not impossible, but industry might have prevented a great part of the others sluggish carelessness.

This ship much refreshed this miserable colony, but Mr. More seeing they sent not for him, his time being now expired, understanding how badly they reputed him in England, and that his employment now was more for their own ends than any good for himself, resolved directly to return with his ship. Having settled all things in the best order he could, left the governor to the charge of the council of six, to succeed each other monthly, till they had further directions from England; whose names were Captain Miles Kendall, Captain John Mansfield, Thomas Knight, Charles Caldicot, Edward Waters, and Christopher Carter, with twelve others, for their assistances. More thus taking leave of those islands, arrived in England; much wrangling they had, but at last they confirmed him, according to promise, eight shares of land; and so he was dismissed of his charge, with shew of favour, and much friendship.

The rule of the six Governors.

THE first thing they did was casting of lots, who should rule first; which lot lighted upon Mr. Caldicot. This last supply somewhat abated the extremity of their miseries, and the better in that their fortifications being finished, they had the more leisure to go abroad with that means was brought to that purpose to fish. Chard, as you have heard, whom all this while More had kept prisoner, they set at liberty: now by reason of their former miseries, little or nothing could be done; yet this governor having thus concluded his month, and prepared a frigate and two-and-thirty men, he embarked himself with two other of his fellow counsellors; namely, Knight and Waters, for the West Indies, to get fruits and plants, goats, young cattle, and such like. But this poor vessel, whether through ill weather, or want of mariners, or both, instead of the Indies fell with the Canaries, where taking a poor Portugal, the which they manned with ten of their own people, as soon after separated from her in a storm, and the next day was taken by a French pickaroon, so that the frigate out of hope of her prize, makes a second time for the West Indies, where she no sooner arrived, but foundered in the sea; but the men in their boat recovered a desolate isle, where after some few months stay, an English pirate took them in, and some of them at last got for England, and some few years after returned to the Summer Isles.

Captain John Mansfield's month.

THE frigate thus gone, Captain Mansfield succeeded. Then was contrived a petition, as from the generality, unto the triumvirate governors, wherein they supplicated, that

that by no means they should resign the government to any should come from England, upon what terms soever, until six months after the return of their ship sent to the West Indies; about this unwarrantable action Mr. Lewes Hues, their preacher, was so violent in suppressing it, that such discontents grew betwixt the governors and him, and divisions among the company, he was arraigned, condemned, and imprisoned, but not long detained before released. Then the matter fell so hotly again to be disputed betwixt him and one Mr. Keith, a Scotchman, that professed scholarship, that made all the people in a great combustion: much ado there was, till at last, as they sat in the church, and ready to proceed to judiciary course against Mr. Hues, suddenly such an extreme gust of wind and weather so ruffled in the trees and church, some cried out, a miracle; others, it was but an accident common in those isles, but the noise was so terrible it dissolved the assembly; notwithstanding, Mr. Hues was again imprisoned, and as suddenly discharged; but those factions were so confused, and their relations so variable, that such unnecessary circumstances were better omitted than any more disputed.

This man's month thus ended, begins Mr. Carter's, which was altogether spent in quietness; and then Captain Miles Kendall had the rule, whose month was also as quietly spent as his predecessor's. Then Captain Mansfield begins his second month, when the ship called the Edwin, arrived with good supplies. About this time divers boats going to sea were lost, and some men drowned; and many of the company repaired to Mr. Hues, that there might be a council according to Mr. More's order, of six governors and twelve assistants, whereupon grew as many more such silly brawls as before, which at last concluded with as simple a reconciliation. In the interim, happened to a certain number of private persons as miserable and lamentable an accident as ever was read or heard of, and thus it was:

In the month of March, a time most subject of all others to such tempests, on a Friday there went seven men in a boat of two or three tons, to fish. The morning being fair, so eager they were of their journey, some went fasting; neither carried they either meat or drink with them, but a few palmeta berries, but being at their fishing-place some four leagues from the shore, such a tempest arose, they were quickly driven from the sight of land in an overgrown sea, despairing of all hope, only committing themselves to God's mercy, let the boat drive which way she would. On Sunday the storm being somewhat abated, they hoisted sail, as they thought, towards the island. In the evening it grew stark calm, so that being too weak to use their oars, they lay adrift that night. The next morning Andrew Hilliard, for now all his companions were past strength either to help him or themselves, before a small gale of wind spread his sail again. On Tuesday one died, whom they threw overboard. On Wednesday three, and on Thursday at night the sixth. All these but the last were buried by Hilliard in the sea, for so weak he was grown he could not turn him over as the rest, whereupon he stripped him, ripping his belly with his knife, throwing his bowels into the water, he spread his body abroad tilted open with a stick, and so let it lie as a cistern to receive some lucky rain water, and this God sent him presently after, so that in one small shower he recovered about four spoonfuls of rain-water to his unspeakable refreshment; he also preserved near half a pint of blood in a shoe, which he did sparingly drink of to moist his mouth: two several days he fed on his flesh, to the quantity of a pound; on the eleventh day from his losing the sight of land, two flying fishes fell in his boat, whose warm juicy blood he sucked to his great comfort. But within an hour after, to his greater comfort, you will not doubt, he once again descried the land, and within four hours after was cast upon a rock near to Port Royal, where his boat

was

was presently split in pieces, but himself, though extremely weak, made shift to clamber up so steep and high a rock, as would have troubled the ablest man in the isle to have done that by day he did by night.

Being thus astride on a rock, the tumbling sea had gotten such possession in his brains, that a good while it was before his giddy head would suffer him to venture upon the forsaking it : towards the morning he crawls ashore, and then to his accomplished joy he discerns where he is, and travels half a day without any refreshment than water, whereof wisely and temperately he stinted himself, otherwise certainly he had drunk his last. In which case he attains a friend's house, where at the first they took him for a ghost, but at last acknowledged and received him with joy, his story (after some hours of recovery of strength to tell it) heard out with admiration. He was not long after conveyed to the town, where he received his former health, and was living in the year 1622.

The next news that happened in this time of ease, was, that a merry fellow having found some few dollars against the Flemish wreck, the bruit went current the treasure was found, and they all made men. Much ado there was to prevent the purloining of it, before they had it ; where after they had tired themselves with searching, that they found amounted not to above twenty pounds sterling, which is not unlike but to be the remainder of some greater store, washed from some wreck not far from the shore.

The company by the Edwin receiving news of the revels were kept in Summer Isles, resolved to make choice of a new governor, called Mr. Daniel Tucker, that a long time had been a planter in Virginia in the government of Captain Smith. All things being furnished for his voyage, he set sail in the George, consoled with the Edwin, with many passengers, which being discovered by them in those isles, they supposed them the frigate sent to the West Indies ; but when they understood what they were, much preparation they made to resist the new governor. Many great ostentations appeared on both sides, but when the *quondam* governor did see his men for most part forsake him, all was very well and quietly compounded, and with much kindness received and welcomed ashore, where his commission was no sooner read, than they accepted and acknowledged him for their governor.

The Government of Captain Daniel Tucker.

ABOUT the midst of May arrived this governor, where finding the inhabitants both abhorring all exacted labour, as also in a manner disdaining and grudging much to be commanded by him, it could not but passionate any man living. But at last, according to the Virginia order, he set every one was with him at Saint Georges, to his task, to clear grounds, fell trees, set corn, square timber, plant vines and other fruits brought out of England. These by their task-masters by break of day repaired to the wharf, from thence to be employed to the place of their employment, till nine of the clock, and then in the afternoon from three till sun-set. Beside meat, drink, and cloaths, they had for a time a certain kind of brass money with a hog on the one side, in memory of the abundance of hogs found at their first landing.

This course thus squared, imitating divers orders used in Virginia, by Sir Thomas Dale : he began by them to look into his instructions given by the company. Whereupon by one Mr. Richard Norwood a surveyor, sent over for that purpose, in the time of Mr. Moore, he began to lay out the eight tribes in the mair, which were to consist of fifty shares to a tribe ; and twenty-five acres to every share. He also began to plant

some colony men, on some of the especial shares. He swore also certain of the chief men of every tribe to be bailiffs thereof; and appointed as many men as he was able for all supplied shares. The goods landed in the store-houses he sent from thence, and dispersed it to his workmen in general: some boats also began to be built; but the pinnace called the Thomas suspected might make an escape, was laid up in a dock, where she yet remaineth.

In the beginning of the second month of his government, he directed warrants to all the bailiffs, for the holding of a general assize at Saint Georges, and appointed Mr. Stokes lieutenant of the King's castle at the Gurnet's Head. The Edwin came with him he sent to the West Indies, by directions from England, to trade with the natives for cattle, corn, plants, and other commodities. A course of great importance, which had it been pursued, would certainly have produced more hopeful effects for the good of the colony, than all the supplies and magazines from England hath or will in a long time.

Presently after her departure began the assizes, executed by his deputy. The chief matter handled was the hanging one John Wood, a Frenchman, for speaking many distasteful and mutinous speeches against the governor, to shew the rest by that example the power of his authority, which after with his own hands he so often executed with a bastinado amongst the poorer sort; many termed it a cruelty, not much less than tyranny; but the sequel is more than strange.

So it was that five of them, seeing by no means they could get passage for England, resolved to undergo all hazards but they would make an escape from such servitude. The chief mariner and plotter of this business was Richard Sanders, and his confederates, William Goodwin, a ship-carpenter, Thomas Harison, a joiner, James Barker, a gentleman, and Henry Puet. These repairing to the governor, and with pleasing insinuations told him, if he would allow them but things necessary, they would build him a boat of two or three tons, with a close deck, should go a-fishing all weathers. The governor half proud that he had brought his men to so good a pass, as he conceived, to offer themselves to so necessary a work, instantly with all willingness furnished them with all things they could desire, and many fair promises to encourage them to perform it with all expedition. Having made choice of a place most fit from molestation, they went forward with that expedition, that in a short time she was brought to perfection. By this time, the ship that brought the governor being ready to depart, he sends a lusty gang to go fetch his new boat to carry him aboard, but arriving at the place where she was built, they could hear no more of her, but she was gone the last evening to sea, to try how she would sail. Much search and dispute was where this boat should be, but at last they found divers letters in the cabins to this effect, directed to the governor, and other their friends, "that their hard and bad usage was so intolerable, and their hope so small ever again to see their country, or be delivered from such servitude, they did rather choose to put themselves to that desperate hazard to go for England, in which if they miscarried, as it was much to be mistrusted, their lives and bloods should be required at their hands was the cause." A compass dial Barker had borrowed of Mr. Hues, to whom he wrote that as he had often persuaded them to patience, and that God would pay them though none did, he must now be contented with the loss of his dial, with his own doctrine. Such leisure they found to be merry when in the eye of reason they were marching into a most certain ruin. The governor being thus satisfied of their escape, extremely threatened them no less than a hanging, but the storms of the ocean they now more feared than him; good provision by bartering they had got from the ship, where Goodwin in a

bravado, told the mariners, though he could not be permitted to go with them, yet peradventure he might be in England before them; whereat the master and his mate laughed merrily. But having now been under sail three weeks, the winds so favoured them, they felt nothing of what they had cause to fear: then a blustering gale blowing in their teeth put them to much extremity for divers days, then becoming more gentle, away they past prosperously some eight or ten days more, till meeting a French picaroon, of whom they desired succour, he, like himself, took from them what he liked, leaving them not so much as a cross-staff to observe withal, and so cast them off: their course still they continued till their victuals began to fall to the lowest ebb, and the very knees of their small vessel were half hewed away for fire-wood. At last to their infinite joy they arrived in Ireland, where the Earl of Tomund honourably entertained them, and caused the boat to be hung up for a monument, and well she might, for she had sailed more than three thousand three hundred miles by a right line through the main sea, without any sight of land, and I think, since God made the world, the like navigation was never done, nor heard of. This fortunate Sanders going to the East Indies, in the rifling some ships there took, it was his chance to buy an old chest for three or four shillings, but because it wanted a key he repented his bargain, and would gladly have sold it again for less: a certain time it lay tossed to and fro as a thing he little regarded, but at last having little to do, he broke it open, where he found a thousand pounds sterling, or so much gold as bought him in England a good estate, which leaving with his wife he returned again to the East Indies.

The George setting sail three days after this escape, the governor seized and confiscated all that those fugitives left behind them. Within a week after returned the Edwin from the West Indies, furnished with figs, pines, sugar-canes, plaintains, papanes, and divers other plants, which were presently replanted, and since increased into greater numbers, also an Indian and a negro, and so much ligna vitæ as defrayed all the charge. The governor thus busied amongst his plants, making hedges of fig-trees and pomegranates, and several divisions by palisadoes for the defence of their guarding and keeping their cattle, for in such husbandry qualities he well deserved great commendations. The adventurers, to supply him, sent with all speed they could the Hopewell, a small bark, but an excellent sailer, and in her one Captain Powell, an excellent mariner, and well acquainted in the Indies, where he was to go trade, after he had landed his passengers in the Summer Isles; but in his journey at the Western Isles meeting a Brazil-man, he liked the sugar and passengers so well, he manned the carvel with his own men, and continued his course; but bethinking himself how this would be entertained at the Summer Isles, he found such doubts, he went directly for the West Indies, to take time to resolve what to do: arriving there, he met a French rover, one every way as cunning as himself, but much more treacherous. A great league of kindness is soon made between them, upon confidence whereof, Powell, and some of the chief with him, being invited aboard him, is easily enticed, and in the midst of their cups both he and his company treacherously made prisoners, and thus was forced to give him their prize, or hang at the yard-arm with all his company. Having set them ashore, away goes the Frenchman; Powell's ship being but hard by, presently fetched them all aboard, but finding his victuals near spent, and no hope at all to recover his prize, set his Portuguese on shore, and set sail for the Summer Isles; where safely arriving, he declared the whole passage to the governor, lest some other in telling might make it worse, of which the governor seemed well enough to approve.

This governor still spent his time in good husbandry, although some of the snarling fort here in England, whom nothing will please, writ to him, he was fitter to be a gardener than a governor: some time he spent in digging of a great pond, but that work proved altogether unprofitable. About that time was held the second assize. The greatest matter passed, was a proclamation against the spoil of Cahowes, but it came too late, for they were most destroyed before; a platform he caused to be erected by Pagit's Fort, where a good fort was very necessary. Captain Powell not having performed his service in the West Indies he conditioned with the company, is sent thither again by this governor, and thirteen or fourteen of his best men, furnished with all things necessary. In the mean time, the company understanding that in January, February, and March, there are many whales, for which fishing they sent the Neptune, a tall ship, well provided with every thing fitting for that purpose; but before she arrived, Captain Tuckar, who had brought also with him more provisions for that employment, sent three good shallops to try what could be done; but whether it was the swiftness of the whale in swimming, or the condition of the place, certain it is, for all their labour and hazard, they could kill none, though they struck many.

To begin his second year, he called the third assize, where divers were punished as their faults deserved: three were condemned to die; two were reprieved, but the third was hanged: the next day there was also a levy for the repairing two forts; but that labour took not such effect as was intended, for want of good directions.

But the great God of Heaven being angry at somewhat happened in those proceedings, caused such an increase of silly rats in the space of two years so to abound, before they regarded them, that they filled not only those places where they were first landed, but swimming from place to place, spread themselves into all parts of the country, insomuch that there was no island but it was pestered with them; and some fishes have been taken with rats in their bellies, which they caught in swimming from isle to isle; their nests they had almost in every tree, and in most places their burrows in the ground like conies; they spared not the fruits of the plants or trees, nor the very plants themselves, but ate them up. When they had set their corn, the rats would come by troops in the night, and scratch it out of the ground. If by diligent watch any escaped till it came to earing, it should then very hardly escape them; and they became noisome even to the very persons of men. They used all the diligence they could for the destroying of them, nourishing cats, both wild and tame, for that purpose; they used ratbane, and many times set fire on the woods, that often ran half a mile before it was extinct; every man was enjoined to set twelve traps, and some of their own accord have set near an hundred, which they ever visited twice or thrice in a night; they also trained up their dogs to hunt them, wherein they became so expert, that a good dog in two or three hours would kill forty or fifty. Many other devices they used to destroy them, but could not prevail, finding them still increasing against them; nay, they so devoured the fruits of the earth, that they were destitute of bread for a year or two; so that when they had it afterwards, they were so weaned from it, they easily neglected to eat it with their meat. Besides, they endeavoured so much for the planting tobacco for present gain, that they neglected many things might more have prevailed for their good, which caused amongst them much weakness and mortality, since the beginning of these vermin.

At last it pleased God, but by what means it is not well known, to take them away, insomuch that the wild-cats and many dogs which lived on them, were famished, and many of them leaving the woods, came down to their houses, and to such places where they

they use to garbish their fish, and became tame. Some have attributed the destruction of them to the increase of wild-cats, but that is not likely they should be so suddenly increased rather at that time than four years before; and the chief occasion of this supposition was, because they saw some companies of them leave the woods, and flew themselves for want of food: others by the coldness of winter, which notwithstanding is never so great there as with us in March, except it be in the wind: besides, the rats wanted not the feathers of young birds and chickens, which they daily killed, and palmeta moss to build themselves warm nests out of the wind, as usually they did; neither doth it appear that the cold was so mortal to them, seeing they would ordinarily swim from place to place, and be very fat even in the midst of winter. It remaineth then, that as God doth sometimes effect his will without subordinate and secondary causes, so we need not doubt, but that in the speedy increase of these vermin, as also by the preservation of so many of them by such weak means as they then enjoyed, and especially in the so sudden removal of this great annoyance, there was joined with, and besides the ordinary and manifest means, a more immediate and secret work of God.

About this time, Henry Long, with seven others, in an extreme storm were cast away, but three of them escaped: one of them being asked what he thought in the worst of that extremity? answered, he thought nothing but gallows claim thy right: and it seems, God well heard his heard his prayer, and rewarded his ingratitude, for he was hanged within half a year after. In that March also five men went to sea, but as yet was never heard of, and three more drowned in a boat. By Hilliard's house grew a very fair cedar, which by a thunder-clap was rent almost to small shivers, and a man stood by him, and Samuel Tanton, most fearfully blasted, yet neither they, the house, nor a little child, yet a pair of racks in the house was all torn to fitters. The Neptune not long after arriving to fish for whale, her fortune proved no better than the governor's, yet some are of opinion, profit might be made by them.

In May they descried four sail, so that manning all their forts, they stood two days in arms, expecting what they were; at last they found it Mr. Powell, returned from the West Indies, in the Hopewell, where missing such trade as he expected, these three frigates coming in his way, he could not chuse but take them; meal, hides, and ammunition was their lading: fair weather the governor made with Powell, till he had got all the goods into his own possession, and then called Powell to a strict account for doing such an unwarrantable act; much ado then was betwixt the taker and receiver; but Powell was glad to be excused to answer it in England, leaving all he had taken behind him in the isles: the Neptune also returned with him, but noble Powell lost all his pay and pillage for this year's work. For which the company sent for to Tuckar, so that he also lost his part as well as Powell: notwithstanding, the governor by this means being strong in shipping, fitted the carvel with twelve men, under the command of Edward Waters, formerly spoken of, and sent them to Virginia about such business as he had conceived. Arriving there, they obtained some goats and hogs, and what they could spare, and so returned for the Summer Isles; but whether they could not find the isles for want of skill, or beaten off by ill weather, or the ill-will they bare the governor, it matters not much; but they bare up again for Virginia, where they all remained, and would return no more to Summer Isles.

The governor thinking to make some use of the hides, set some that professed themselves tanners, to make trial of their skill; but they lost their labours, and spoiled the hides. Also he called another assize, concerning a poor fellow called Gabriel, for concealing some speeches M. Pollard and M. Rich should use, tending to the disreputation

tation of the governor, and his injustice and cruelties ; which being brought within the compass of sedition and mutiny, though a year ago, many were called in question about it, although every one ordinarily had spoke as much. Yet Gabriel, for example fake, was condemned to be hanged, and was upon the ladder, but reprieved. The other two, M. Pollard and M. Rich, were imprisoned ; but upon better consideration, the fact appeared so small and ridiculous, upon their submission, they were pardoned, and restored to their places.

The Division of the Summer Isles into Tribes, by Mr. Richard Norwood, Surveyor.

ACCORDING to the directions of the Council and Company, as they had determined by lot, Mr. Norwood took a plot of the isle, and divided it with as much faithfulness as he could, assigning to every adventurer his share or proportion ; as namely, to lay out a large proportion, to be called the general land, and employed for public uses, as for the maintenance of the governor, ministers, commanders of forts, soldiers, and such like : and to this end was assigned Saint George's Island, Saint David's Island, Longbridge Island, Smith's Island, Cooper's Island, Cony Island, Nonesuch Island, part of the main, and sundry other small isles. The rest was to be divided into eight parts, each part to be called a tribe, and to have his denomination of some principal person that was adventurer therein : and accordingly, the first tribe to be eastward was then called Bedford's Tribe, now Hamilton's ; the second, Smith's tribe ; the third, Cavendish, now Devonshire's ; the fourth, Pembroke's ; the fifth, Paget's ; the sixth, Mansel's, now Warwick's ; the seventh, Southampton ; the eighth, Sands : in the honours of the Right Honourable the Marquis Hamilton, Sir Thomas Smith, the Earl of Devonshire, the Earl of Pembroke, the Lord Paget, the Earl of Warwick, the Earl of Southampton, and Sir Edwin Sands. Again, each of those tribes were to be divided into fifty parts, called shares ; and every adventurer to have his shares in these tribes as was determined, by casting lots in England : the manner of it appears by the map, and more largely by his book of the survey of the country, which is in the records of the colony. And then began this which was before as you have heard, but as an unsettled and confused chaos, to receive a disposition, form, and order, and become indeed a plantation.

The Names of the Adventurers, and their Shares in every Tribe, according to the Survey, and the best Information yet ascertained of any of their Alterations.

<i>Hamilton's Tribe.</i>				Shares.			
		Shares.					
James, L. Marquis Hamilton	-	6	Mr. William Web	-	-	-	1
Sir Edward Harwood	-	4	Mr. John Bernard's assignees	-	-	-	2
Mr. John Delbridge	-	3	Mr. Elias Roberts, jun.	-	-	-	1
Mr. John Dike	-	3	Mr. John Gearing	-	-	-	2
Mr. Ellis Roberts	-	2	Mr. Cleophas Smith	-	-	-	2
Mr. Robert Phips	-	1	Robert, Earl of Warwick	-	-	-	4
Mr. Ralph King	-	1	Mr. Thomas Covell	-	-	-	3
Mr. Quick's assignees	-	2	Mr. Greenwel's assignees	-	-	-	1
Mr. William Cannig	-	4	Mr. Cley	-	-	-	1
Mr. William Cannig	-	1	Mr. Powlson	-	-	-	2
			Mr. John Dike	-	-	-	1 $\frac{1}{2}$

Common

	Shares.		Shares.
Common land for conveniency	25	Mr. Thomas Judwyn	2
Mr. John Dike	1½	William, Earl of Pembroke	10
Mr. George Thorp's assignees	1	Mr. Richard Edwards	1
		Mr. Harding	1
2. <i>Smith's Tribe.</i>		Mr. Richard Edwards	1
Sir Dudley Dig's assignees	2	Mr. Elias Roberts	1
Mr. Richard Edwards	2	Mr. Richard Edwards	1
Mr. William Pane	4	Mr. Jacobson's assignees	1
Mr. Robert Smith	2	Mr. John Farrar	1
Mr. George Barclay's assignees	5	Mr. Nicholas Farrar	1
Sir Samuel Sands	1	Mr. Nicholas Farrar	1
Mr. Anthony Pennistone	4	Mr. William Canning	2
Sir Edwin Sands	5	Mr. Richard Martin	2
Sir Thomas Smith	5	Mr. Moris Abbot	2
Mr. Richard More	4	Mr. Richard Caswell	1
Mr. Ad. Brumfield	2	Mr. Richard Caswell	2
Mr. Robert Johnson, Alderman	5	Mr. William Caswell	1
Mr. John Wroth	3	Mr. Richard Edwards	2
Mr. George Smith	4	Mr. Richard Caswell	1
		Mr. Richard Edwards	1
		Mr. George Sands' assignees	2
		Mr. William Paine	2
		5. <i>Paget's Tribe.</i>	
		Mr. John Chamberlaine	5
		Mr. Tho. Ayres and Mr. Rich. Wiseman	4
		Mr. Richard Wiseman	1
		William, Lord Paget	10
		Mr. William Palmer	4
		Mr. Bagnell	5
		Mr. John Bale	1
		Mr. Wheatley	4
		Mr. Christopher Barron	4
		Mr. John Wodall	1
		Mr. John Wodall	1
		Mr. Lewis	2
		Mr. Owen Arthor's assignees	2
		Mr. George Etheridge	4
			2
		Sir William Wade	1
		Mr. John Bernard's heirs	1
		6. <i>Warwick's Tribe.</i>	
		Mr. Wheatley	2
		Captain Daniel Tucker	2
		Mr. William Felgate	1
		Robert, Earl of Warwick	5
			Mr.
4. <i>Pembroke's Tribe.</i>			
Mr. George Smith	4		
Glebe land	2		
Mr. Nicholas Hide	1		
Sir Lawrence Hide	1		

	Shares.		Shares.
Mr. George Smith	5	Mr. Richard More	6
Mr. Samuel Tickner	2	Mr. George Scot, Mr. Edward Scot,	
Mr. Francis Mevell	1	and Mr. Anthony Abdy	6
Mr. Stephen Sparrow	1	Henry, Earl of Southampton	4
Mr. Joseph Man	5	Mr. Andrew Broumfield	2
Captain Daniel Tucker	2	Mr. Henry Timbed	2
Mr. Elias More	1	Sir Thomas Hewet	2
Doctor Anthony Hunton	2	Mr. Perce	1
Mr. Francis Moverill	1	Sir Ralph Winwood	2
Mr. Richard Poulson	1		
Mr. Matthew Shephard	1		
Mr. George Tucker	10		
Mr. Ch. Clitheroe	1		
Mr. George Swinow	2		
Mr. Richard Tomlings	1		
Mr. Francis Meverill	1		
Mr. John Waters	2		
Mr. Martin Bond	2		
7. <i>Southampton's Tribe.</i>		8. <i>Sandy's Tribe.</i>	
Captain Daniel Tucker	4	Mr. George Barcklie's heirs	5
Mr. John Britton	1	Sir Edwin Sands	5
Mr. Richard Chamberland	3	Mr. Jerom Hidon	10
Mr. Leon. Harwood's assignees	1	Mr. Tho. Millin and Mr. John Cuffe	2
Mr. John Banks	1	Mr. Robert Chamberlaine	2
Sir Nathaniel Rich	12	Mr. Abraham Chamberlaine	1
Robert, Earl of Warwick	3	Mr. George Smith	2
		Mr. Robert Gore	3
		Sir Edward Sackvile	1
		Sir John Davers	1
		Mr. Robert Gore	2
		Mr. John Delbridge	1
		Mr. John Wroth	1
		Mr. John West's heirs	4
		Mr. Richard Chamberlaine	10

Touching the common ground in each tribe, as also the overplus, you may find that at large in the book of surveyes amongst their records.

Now, though the country was small, yet they could not conveniently have been disposed and well settled, without a true description and a survey of it; and again, every man being settled where he might constantly abide, they knew their business, and fitted their household accordingly: then they built no more cabins, but substantial houses, they cleared their grounds, and planted not only such things as would yield them their fruits in a few months, but also such as would afford them profit within a few years; so that in a short time the country began to aspire, and nearly approach unto that happiness and prosperity wherein now it flourisheth, &c.

But to follow the history, upon the best plot of ground could be found, the governor prevailed so much with the generality, they built a fair house of cedar, which being done, he appropriated it to himself, which occasioned exceeding much distaste. About this time arrived the *Diana*, with a good supply of men and provision, and the first magazine ever seen in those isles; which course is not so much commended here, as cursed and abhorred by reason of enhancements of all the inhabitants there; fix or seven weeks this ship staid, then having towards her freight thirty thousand weight of tobacco; which proving good, and coming to a lucky market, gave great encouragement to the adventurers to go lustily forward in their plantation, and without such success, there is nothing but grudging and repining. But about the appropriation of this new-built house, many bad discontents grew betwixt the oppressed colony and the governor,

governor, especially betwixt him and the minister, and Lewes, who would neither be feared with threats nor imprisonment, that their malice continued till they met in England, of which the minister made the cause so plain, he very well and honestly, it seems, discharged himself.

Now in those times of these endless uncivil broils, two desperate men and a proper gentlewoman got into a boat, and thinking to make an escape to Virginia, as appeared by some letters they left behind them, were never more heard on. The very next month after, the like was attempted by six others, so desirous they were to be rid of their servitude; but their plot being discovered by one of their society, they were apprehended, arraigned, and condemned to be hanged; the next day being led with halters about their necks to the place of execution, one was hanged, and the rest reprieved.

The *Diana* arriving well in England, for all the infinite numbers of complaints, the tobacco did help to sweeten all manner of grievances, yet it bred a distaste in the opinions of so many, they began to think of another governor; but for that time it was so qualified by divers of his friends, they dispatched away the *Blessing*, which arrived in the Summer Isles. Though their general letter was fair and courteous to the governor, yet by the report of the passengers and divers particular letters from his friends, it was assured him his cruelty and covetousness, for all his pains and industry, was much disliked, nor was he like to enjoy his house, and that land he had planted for himself, by the extreme oppression of the commonalty. This caused so many jealousies to arise in his conceit, that at last he fully resolved to return by this ship, that no sooner set sail from England, than they proceeded to the nomination of a new governor. Many were presented according to the affections of those that were to give in their voices, but it chiefly rested betwixt one Captain Southwell, and one Mr. Nathaniel Butler, where we will leave them awhile to the consideration of the court and company. Now Captain Tuckar having instituted Captain Kendall one of the six governors (before spoken of) for his substitute, returned with this ship directly for England, as well to excuse himself of those objections he suspected, as to get assured him the house and land he had allotted for himself, lest it might otherwise be disposed of in his absence.

Collected out of their records by N. B. and the relations of
Mr. POLLARD, and divers others.

The Government of Captain Miles Kendall, Deputy for Captain Tuckar.

THE unexpected return of Captain Tuckar caused a demur in the election of the new governor; some persuading these oft changes were so troublesome, dangerous, and chargeable, it were best to continue Captain Kendall; others again stood for Captain Tuckar; but during the time of these opinions, the *Gilliflower* was dispatched with a supply. Now I should have remembered, Tuckar was no sooner out of the harbour, but he met Mr. Elfred, in a ship called the *Treasurer*, sent from Virginia to trade: by her he writ to his deputy, Mr. Kendall, to have a care of all things, and beware of too much acquaintance with this ship, which he suspected was bound for the West Indies. Notwithstanding, Elfred received what kindness the isle could afford; he promised to revisit them at his return; this done, because they would not be governless when his deputyship was expired, there was a general assembly, and by that election Kendall was confirmed to succeed still governor. Now they began to apply themselves to the finishing some platform about Smith's fort, and laying the foundation of a church

to be built of cedar, till the Gilliflower arrived with some private letters to Kendall, how he was elected governor of those isles for three years. During her stay, they held their assizes, where, for some few suspected facts, three were condemned, and the better to terrify the rest, led to the place of execution, but reprieved; divers of the rest had their faults pardoned, and the Gilliflower set sail for Newfoundland.

The love and kindness, honesty and industry of this Captain Kendall hath been very much commended, by others somewhat disliked; but an angel in those employments cannot please all men; yet this consideration bred much ill blood as well here as there, so that the company directly concluded, Captain Butler should, with what expedition they could, go to be their governor: in the interim, they took the opportunity of a ship, called the Seaflower, bound for Virginia, and by her sent a preacher and his family, with divers passengers, and news of a new governor. This bred a great distaste amongst many, that still they should have new officers and strangers for their governors they never heard of, and themselves still kept there whether they would or no, without any preferment, no, nor scarce any of them there inhabiting, to have any land at all of their own, but live all as tenants, or as other men's poor servants.

About this time came in Captain Kerby with a small bark, from the West Indies, who having refreshed himself, was very kindly used by the governor, and so departed. Not long after, a Dutch frigate was cast away upon the western shore; yet, by the help of the English, they saved the men, though the ship perished amongst the rocks. A little after, one Ensign Wood being about the loading of a piece, by thrusting a pike into the concavity, grating upon the shot, or somewhat about the powder, struck fire within her, and so discharged, but wounded him cruelly, and blew him into the sea, though he was got out by some that stood by him, yet he died of those wounds. Within two or three days after, Captain Elfred now comes in a second time; but of that we shall say more in the government of Captain Butler, who presently after arrived with a good supply, and was kindly entertained by Captain Kendall and all the colony.

From a relation of THO. SPARKES, and divers others.

The Government of Captain Nathaniel Butler.

CAPTAIN Butler being arrived the 20th of October 1619, some mutterings there was how to maintain their election of Captain Kendall, but better remembering themselves, that conceit quickly dissolved. The next day, Kendall, the ministers, and the council went aboard to salute the new governor, where, after they had dined with the best entertainment he could give them, they saw the redoubt belonging to the King's castle by a mischance on fire, whither he repaired with all the means he could to quench it; but all the platform and carriages were consumed before their faces, and they could not help it. Two days after he went up to the town, had his commission publicly read, made a short speech to the company, and so took upon him the government. Then presently he began to repair the most necessary defects: the next month came in the Garland, sent from England six or seven weeks before him; so that being seventeen weeks in her voyage, it was so tedious and grievous to divers of the fresh-water passengers, that such a sickness bred amongst them, many died, as well sailors as passengers. Having taken the best order he could for their release, passed through all the tribes, and held his first assize in Captain Tuckar's house at the overplus. Towards the last of this month of November, there arose a most terrible storm or hericano, that blew up many great trees by the roots: the Warwick, that brought the governor, was
cast

cast away, but the Garland rid by her, saved herself by cutting down her masts; and not long after, a second storm, no less violent than the first, wherein the mount, which was a frame of wood built by Mr. More, for a watch-tower to look out to sea, was blown up by the roots, and all that winter crop of corn blasted; and thus was the new governor welcomed.

With the beginning of the new year he began his first piece of fortification upon a rock which flanks the King's castle, and finding the ship called the Treasurer stark rotten and unserviceable, he took nine pieces of ordnance from her to serve other uses. The Garland, for want of means, could not make her voyage to Virginia, as she was appointed; wherefore he entertained her to return to England, with all the tobacco they had in the isle. It was January before she departed, in which time she failed not much to have been twice cast away; but those strange and unavoidable mischances rather seemed to quicken the governor's industry than to dull it. Having finished the church begun by Captain Kendall, with an infinite toil and labour he got three pieces out of the wreck Warwick; having an excellent Dutch carpenter, he entertained of them that were cast away in the Dutch frigate, he employed him in building of boats, whereof they were in exceeding great want. In February they discovered a tall ship beating to and again, as it seemed by her working, being ignorant of the coast: some thought her a Spaniard, to view their forts, which stand most to that part she so nearly approached; some English, but the most some Dutch man of war; the wind blew so high, they durst not send out a boat, though they much doubted she would be foul of their rocks, but at last she bore up rommy for the sea, and we heard of her no more. That evening, a lucky fellow it should seem he was, that found a piece of ambergris of eight ounces, as he had twice before, which bringing to the governor, he had ready money for the one half, after three pounds an ounce, according to their order of court, to encourage others to look out for more, and prevent that mischief ensueth by concealing of it.

Within a few days after, they descried two frigates, that came close to the shore, and sent a letter to the governor, writ in Italian, that they were Hollanders, had been in the West Indies, and desired but to arrive, refresh themselves with wood and water, and so begone. The governor forthwith sent them to understand, that being there under His Majesty of England, to command those isles, he was to carry himself a friend to his friends, and an enemy to his enemies; if therefore he could shew a lawful commission for his being honestly and nobly employed, he and his should be kindly welcome, otherwise they were to adventure at their perils. But his commission was so good, he staid there two months, and was so well fitted with oil and bacon, they were all glad and happy of this Dutch Captain Scoutan's arrival, with many thanks to their old friend Captain Powell, that had conducted him thither: the colony being exceedingly in great want and distress, bought the most part of it at reasonable rates; so Captain Scoutan returned to the West Indies, and Captain Powell, for his part, in the Low Countries. Whilst these things were in action, the adventurers in England made many a long look for their ships; at last, the Garland brought them all the news, but the tobacco was so spoiled, either in the leaking ship, or the making up, it caused a great suspicion there could be none was good come from those isles; where, (were they but perfect in the cure) questionless it would be much better than a great quantity of that they sell for verinas, and many a thousand of it in London hath been bought and sold by that title.

The governor being clear of those distractions, falls upon the restoring of the burnt redoubt, where he cuts out a large new platform, and mounts seven great pieces of

ordnance upon new carriages of cedar. Now amongst all those troubles, it was not the least to bring the two ministers to subscribe to the Book of Common Prayer, which all the bishops in England could not do. Finding it high time to attempt some conformity, bethought himself of the Liturgy of Guernsey and Jersey, wherein all those particulars they so much stumbled at, were omitted. No sooner was this propounded, but it was gladly embraced by them both, whereupon the governor translated it verbatim out of French into English, and caused the eldest minister upon Easter-day to begin the use thereof at St. George's Town, where himself, most of the council, officers, and auditory, received the sacrament; the which form they continued during the time of his government.

Much about this time, in such a fair morning that had invited many boats far out to the sea to fish, did rise such a hurricane that much endangered them all, so that one of them with two boys was driven to sea, and never more heard of. The ministers thus agreed, a proclamation was published for keeping of the sabbath, and all the defective carriages he endeavoured to have renewed, built a small boat of cedar only to go with oars, to be ready upon any occasion to discover any shipping, and took order every fort should have the like; also caused numbers of cedars to be brought from divers places in floats, to rebuild the mount, which with an unspeakable toil was raised seven feet higher than before, and a falcon mounted at the foot, to be always discharged for a warning to all the forts, upon the discovery of any shipping, and this he called Rich Mount. This exceeding toil and labour, having no cattle, but only men's strength, caused many petitions to the governor, that all those general works might cease till they had reaped their harvests, in that they were in great distress for victuals, which he so well answered, their own shames did cause them to desist from that importunity, and voluntarily perform as much as he required.

Finding accidentally a little cross erected in a bye-place, amongst a many of bushes, understanding there was buried the heart and entrails of Sir George Summers, he resolved to have a better memory for so worthy a soldier than that: so finding also a great marble stone brought out of England, he caused it by masons to be wrought handsomely, and laid over the place, which he environed with a square wall of hewn stone, tomb like; wherein he caused to be graven this epitaph he had composed, and fixed it upon the marble stone; and thus it was:

In the year one thousand six hundred and eleven,
Noble Sir George Summers went hence to heaven;
Whose well tried worth that held him still employed,
Gave him the knowledge of the world so wide.
Hence 'twas by heaven's decree, that to this place
He brought new guests, and name to mutual grace,
At last his soul and body being to part,
He here bequeath'd his entrails and his heart.

Upon the sixth of June began the second assize, that reduced them to the direct form used in England. For besides the governor and council, they have the bailiffs of the tribes, in nature of the deputy-lieutenants of the shires in England, for to them are all precepts and warrants directed, and accordingly answered and respected; they perform also the duties of justices of peace, within their limits. The subordinate officers to these in every tribe, are the constables, head-boroughs, and church-wardens; these are the triers of the tobacco, which if they allow not to be merchantable, is burnt; and these are the executioners of their civil and politic causes.

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For points of war and martial affairs, they have the governor for lieutenant-general, the serjeant-major, master of ordnance, captains of companies, captains of forts, with their several officers, to train and exercise those numbers under their charge, in martial discipline.

Concerning their courts for decision of right and justice, the first, though last in constitution, is their general assembly; allowed by the state in England, in the nature of a parliament, consisting of about forty persons; viz. the governor, the council, the bailiffs of the tribes, and two burgeses of each tribe chosen by voices in the tribe, besides such of the clergy as the governor thinks most fit, to be held once a year, as you shall hear more thereof hereafter. The next court is the assize or jails of delivery, held twice every year, in Christmas and Whitsun week, for all criminal offenders, and civil causes betwixt party and party; as actions of debt, trespass, battery, slander, and the like; and these are determined by a jury of twelve men, and above them is also a grand jury to examine matters of greater consequence. The last day of the assize might also well be held a court, for hearing the transgressions in matters of contempt, misbehaviour towards any magistrate, riots, seditious speakers, contemners of warrants, and such like: there are also as occasion shall require, many matters heard by the governor, or his officers, and oft justice done in several places, but those are but as days of hearing, and as preparatives against their courts, &c.

At this last assize eighteen were arraigned for criminal causes, a number very extraordinary considering the place; but now occasioned by reason of the hard year, and the store of ill-chosen new comers; of these, some were censured to the whipping-post, some burned in the hand, but two were condemned to die, yet the one was reprieved, the other hanged; this done, every man returned to his home: many trials they made again about the Warwick, but to small purpose, her ordnance being lashed so fast they could not be unloosed, till the ropes and decks were rotten, yet some few butts of beer being floated they got, which, though it had lain six months under water, was very good, notwithstanding the next year they recovered five pieces of ordnance.

Upon the first of August, according to the company's instructions from England, began the general assembly at the town of St. George, which was the first these isles ever had; consisting, as is said, of the governor, council, bailiffs, and burgeses, and a secretary to whom all bills were presented, and by him openly read in the house, also a clerk to record the acts, being thirty-two in all; fifteen of which being sent into England, were by a general consent received and enacted, the titles whereof are these following: as for all the reasons for them, they would be too tedious to recite.

The first was against the unjust sale and letting of apprentices and other servants, and this was especially for the righting the undertakers in England. The second, concerning the disposing of aged, diseased, and impotent persons, for it being considered how careless many are in preferring their friends, or sending sometimes any they can procure to go, such unserviceable people should be returned back at their charge that sent them, rather than be burdensome to the poor inhabitants in the isles. The third, the necessary manning the King's Castle, being the key of the isle, that a garrison of twelve able men should be there always resident; and three thousand ears of corn, and one thousand pounds of tobacco paid them by the generality yearly, as a pension. The fourth, against the making unmerchantable tobacco, and officers sworn to make true trials, and burn that was naught. The fifth, enjoined the erection of certain public bridges, and the maintenance of them. The sixth, for a continual supply of victuals for

for all the forts, to be preserved till some great occasion to use it. The seventh was, for two fixed days every year for the assizes. The eighth, commands the making of highways, and prohibiting the passage over men's grounds and planted fields, as well to prevent the spoiling of gardens, as convenience to answer any alarm. The ninth, for the preserving young tortoises and birds, that were carelessly destroyed. The tenth, provided against vagabonds, and prohibited the entertainment of other men's servants. The eleventh, compelled the setting of a due quantity of corn for every family. The twelfth, the care corn being set, enjoined the keeping up of their poultry till it was past their reaches. The thirteenth, for the preservation of sufficient fences, and against the felling of marked trees appointed for bounds. The fourteenth, granted to a levy for a thousand pound weight of tobacco, towards the payment of public works, as the bridges and the mount. The fifteenth, for the enjoining an acknowledgment and acception of all resident governors, and the warranting him to continue, though his time be expired, till the arrival of a legitimate successor from England, to prevent all unmeet and presumptuous elections, besides it was desired by petition in England, the new governors should live two months as a private man after his arrival, if his predecessor did stay so long, the better to learn and observe his course. And these are the contents of those fifteen acts, applied as you may perceive, which the laws of England could not take notice of, because every climate hath somewhat to itself in that kind in particular; for otherwise as it is conceived, it hath been a high impudence and presumption to have meddled with them, or indeed with any such as these laws, that had with such great justice and judgment always provided for.

No sooner was this business over, but the magazine ship is discovered, and that night came into the harbour, but in a very weak and sickly case, having cast overboard twenty or thirty of her people; and so violent was the infection, that the most part of the sailors, as well as passengers, were so sick, or dismayed, or both, that the master confessed, had they staid at the sea but a week longer, they had all perished. There arrived with this ship divers gentlemen of good fashion, with their wives and families; but many of them crazy by the tediousness of the voyage: howsoever, most of them, by the excellent salubrity of the air, than which the world hath not a better, soon after recovered; yet some there were that died presently after they got ashore, it being certainly the quality of the place, either to kill, or cure quickly, as the bodies are more or less corrupted. By this ship the company sent a supply of ten persons for the generality, but of such bad condition that it seemed they had picked the males out of Newgate, the females from Bridewell: as the governor found it his best course, to grant out the women to such as were so greedy of wives, and would needs have them for better for worse; and the men he placed in the King's Castle for soldiers. But this bad, weak, sickly supply being dispersed for their best relief, by the much employment of his boats in removing them, many of his own men became infected, so that for some weeks they were not able to do him any service at all. Strict instructions also they brought for the planting of sugar canes, for which the island being rocky and dry, is so improper, that few as yet have been seen to prosper; yet there are others hold the contrary opinion, that there is rain so ordinarily, the isles are so moist, as produceth all their plants in such infinite abundance; there is no great reason to suspect this, were it rightly used, more than the rest. Seventy thousand weight of tobacco being prepared towards her freight, she returned for England. No sooner was she gone than came in another, sent by the company and generality, well conditioned, but she failed not much to have been cast away amongst those dangerous and terrible rocks; by her came also
express

express command, they should entertain no other ships, than were directly sent from the company : this caused much grudging, and indeed a general distraction and exclamation among the inhabitants, to be thus constrained to buy what they wanted, and sell what they had at what price the magazine pleased, and to debar true men from coming to them for trade or relief, that were daily received in all the harbours in England. So long this ship staid going for freight and wages, the master not caring how long he lay at that rate in a good harbour, the governor was ready to send her away by proclamation. Thus ended the first year of the government of C. Butler.

With the first of the second year were held the assizes, where all the bailiffs were fined for not giving a beginning to the building of the bridges; there was also an order to restrain the excessive wages all handicraftmen would have; and that the churchwardens should meet twice a year, to have all their presentments made perfect against the assizes. The assizes done, all the ablest men were trained in their arms, and then departed to their own homes. The town thus cleared, he made certain new carriages for some demi-culverines, and a large new store-house of cedar for the yearly magazine goods; finished Warwick's fort, begun by Mr. More, and made a new platform at Paget's Fort, also a fair house of lime and stone for the town-house. The three bridges appointed by the general assembly, was followed with such diligence, though they were more than a hundred, or a hundred and twenty feet in length, having the foundation and arches in the sea, were raised and accomplished, so that man or beast with facility might pass them.

At Whitsunday was held the fourth general assize at Saint George's, where were tried twenty several causes; four or five were whipped or burnt in the hand, for breaking of houses: also an order was made, that the party cast in the trial of any cause should pay to every of the jurors four-pence; moreover, that not past ten leaves at the most should grow upon a plant of tobacco, and that also in the making it up, a distinction should diligently be observed of two kinds, a better and a worse: then they built a strong stone house for the captain of the King's castle and corps du guard, and repaired what defects they could find in the platforms and carriages.

Captain Powell, so oft mentioned, having been in the West Indies for the States of Holland, came to an anchor within shot of their ordnance, desiring admittance for wood and water, of which he had great need, but the governor would not permit him, so he weighed and departed; whereat the company were so mad, it was not possible to constrain them to cease their exclamations against the company's inhibition, till they were weary with exclaiming: but still for their better defence, not thinking themselves sufficiently secure, having finished two new platforms more, arrived the magazine ship, but her master was dead, and many of the passengers, the rest for most part very sick; and withal, a strange and wonderful report of much complaint made against the governor to the company in England, by some of them returned in the last year's shipping; but it was eight days before she could get in, by reason of ill weather, being forced again to sea; so that time they kept every night continually great fires, she might see the isle as well by night as day; but at last she arrived, and he plainly understood he had more cause a great deal to look for misconstruction of all his service, than an acknowledgment, much less a recompence, any better than his predecessors; but it is no new thing to requite the best desert with the vilest of ingratitude.

The very next day's night after the arrival of the magazine-ship, news was brought the governor by a dismayed messenger from Sands's tribe, that one hundred Spaniards were landed in that part, and divers ships discovered at sea; whereupon he presently

manned

manned the forts, and instantly made thitherward in person with twenty men, determining as he found cause to draw together more strength by the way. Being got thither by the break of the next day, instead of an enemy, which he expected, he met only with a company of poor distressed Portuguese and Spaniards, who in their passage from Carthagená in the West Indies, in consort with the Spanish fleet of Plate, by the same storm that had endangered the magazine ship, lost theirs upon those terrible rocks, being to the number of seventy persons, were strangely preserved, and the manner was thus :

About sun-set their ship beating amongst the rocks, some twenty of the sailors got into the boat with what treasure they could, leaving the captain, the master, and all the rest to the mercy of the sea. But a boy not past fourteen years of age, that leaped after to have got into the boat, missing that hope, it pleased God he got upon a chest adrift by him, whereon, they report, he continued two days, and was driven near to the clean contrary part of the isle, where he was taken up near dead, yet well recovered. All this night the ship sticking fast, the poor distressed in her the next day spying land, made a raft, and were those gave the alarm first ashore about three of the clock in the afternoon. The morning after, about seven of the clock, came in the boat to a place called Mangrove Bay, and the same day their carpenter was driven ashore upon a plank near Hog Bay. There was a gentlewoman that had stood wet up to the middle upon the raft, from the ship to the shore, being big with child, and although this was upon the 13th of September, she took no hurt, and was safely delivered of a boy within three days after. The best comfort that could be given them in those extremities they had, although some of the baser sort had been rifling some of them before the governor's arrival ; also the Spanish captain and the chief with him much complained of the treachery of his men to leave him in that manner, yet had conveyed with them the most of the money they could come by, which he easily missed ; whereupon he suddenly caused all them he accused to be searched, and recovered to the value of one hundred and forty pounds sterling, which he delivered into the captain's hands, to be employed in a general purse towards their general charge. During their stay in the isles, some of the better sort, nine or ten weeks dined at his own table, the rest were billeted amongst the inhabitants at four shillings the week, till they found shipping for their passage, for which they paid no more than the English paid themselves ; and for the passage of divers of them, the governor was glad to stand bound to the master ; some others that were not able to procure such friendship, were so constrained to stay in the isles, till by their labours they had got so much as would transport them ; and thus they were preserved, relieved, and delivered.

In the month ensuing arrived the second ship, and she also had lost her master and divers of her passengers ; in her came two Virginian women, to be married to some who would have them, that after they were converted and had children, they might be sent to their country and kindred to civilize them. Towards the end of this month came in the third ship, with a small magazine ; having sold what she could, carried the rest to Virginia, and never did any of those passengers complain either of their good diet, or too good usage at sea ; but the clean contrary still occasioned many of those extremities. The 5th of November the damnable plot of the powder treason was solemnized with prayers, sermons, and a great feast, whereto the governor invited the chief of the Spaniards, where drinking the King's health, it was honoured with a quick volley of small shot, which was answered from the fort with the great ordnance, and then again concluded with a second volley of small shot ; neither was the afternoon without music and dancing, and at night many huge bonfires of sweet wood.

The

The Spaniards to express their thankfulness at their departure, made a deed of gift to the governor of whatsoever he could recover of the wrecked ship; but the ships as they went out came so dangerously upon a rock, that the poor Spaniards were so dismayed, swearing this place was ominous unto them, especially the women, that desired rather to go ashore and die howsoever than adventure any further in such a labyrinth of dangers, but at last she got clear without danger, and well to England; the other went to Virginia, wherein the governor sent two great chests filled with all such kinds and sorts of fruits and plants as their islands had, as figs, pomegranates, oranges, lemons, sugar-canes, plantains, potatoes, papaws, cassado roots, red pepper, the prickly-pear, and the like. The ships thus dispatched, he goeth into the main, and so out to sea to the Spanish wreck. He had been there before presently after her ruin, for never had ship a more sudden death, being now split in pieces, all under water. He found small hope to recover any thing, save a cable and an anchor, and two good sacres; but the wind was so high, he was forced to return, being ten miles from the shore, only with three murderers, which were known to be the same Captain Kendall had sold to Captain Kerby, whose ship was taken by two men of war of Cartagena, the most of his men slain or hanged, and he being wounded, died in the woods. Now their pilot being at this service, got thus those three murderers to their ship, and their ship thus to the Bermudas, as the Spaniards remaining related to the governor and others.

Having raised three small bulwarks at Southampton's Fort, with two curtains and two ravelines, which indeed is only the true absolute piece of fortification in the isles; Christmas being come, and the prefixed day of the assize, divers were whipped and burnt in the hand, only three young boys for stealing were condemned, and at the very point of hanging, reprieved. The governor then sent his lieutenant all over the main to distribute arms to those were found most fit to use them, and to give order for their rendezvous, which were hanged up in the church. About this time it chanced a pretty secret to be discovered to preserve their corn from the fly or weavel, which did in a manner as much hurt as the rats. For the year before having made a proclamation that all corn should be gathered by a certain day, because many lazy persons ran so after the ships, to get beer and aqua-vitæ, for which they will give any thing they have, much had been lost for want of gathering. This year having a very fair crop, some of the inhabitants, none of the best husbands, hastily gathered it, for fear of the penalty, threw it in great heaps into their houses unhusked, and so let it lie four or five months, which was thought would have spoiled it; where the good husbands husked it, and with much labour hung it up, where the flies did so blow on it, they increased to so many weavels, they generally complained of great loss: but those good fellows that never cared but from hand to mouth, made their boasts, that not a grain of theirs had been touched nor hurt, there being no better way to preserve it than by letting it lie in its husk, and spare an infinite labour formerly had been used. There were also very luckily about this time found out divers places of fresh water, of which many of the forts were very destitute, and the churchwardens and sidesmen were very busy in correcting the prophaners of the sabbath, drunkards, gamesters, and such like. There came also from Virginia a small bark, with many thanks for the presents sent them; much aqua-vitæ, oil, sack, and bricks, they brought in exchange of more fruits and plants, ducks, turkies, and limestone, of which she had plenty, and so returned. During the abode of the stay of this ship, the marriage of one of the Virginia maids was consummated with a husband fit for her, attended with more than one hundred guests, and all the dainties for their dinner could be provided; they made

also another trial to fish for whales, but it took no more effect than the former: this was done by the master of the Virginia ship that professed much skill that way, but having freighted his ship with limestone, with twenty thousand weight of potatoes, and such things as he desired, returned for Virginia.

April and May were spent in building a strong new prison, and perfecting some of the fortifications, and by the labour of twenty men, in fourteen days was got from the Spanish wreck four excellent good sacres, and mounted them at the forts. Then began the general assize, where not fewer than fifty civil, or rather, uncivil actions were handled, and twenty criminal prisoners brought to the bar; such a multitude of such vile people were sent to this plantation, that he thought himself happy his time was so near expired: three of the foulest acts were these; the first for the rape of a married woman, which was acquitted by a senseless jury; the second and the third for unnatural crimes, the one with a sow, the other with a boy, for which they were hanged; during the time of the imprisonment of this second criminal, a dunghill cock belonging to the same man, did continually haunt a pig of his also, and to the wonder of all them that saw it, who were many, did so frequently tread the pig, as if it had been one of his hens, that the pig languished and died within a while after, and then the cock resorted to the very same sow (that this fellow was accused for) in the very same manner; and as an addition to all this, about the same time two chickens were hatched, the one whereof had two heads, the other crowed very loud and lustily within twelve hours after it was out of the shell. A desperate fellow being to be arraigned for stealing a turkey, rather than he would endure his trial, secretly conveyed himself to sea in a little boat, and never since was heard of, nor is he ever like to be, without an exceeding wonder, little less than a miracle. In June they made another trial about the Spanish wreck, and recovered another sacre and a murderer; also he caused to be hewed out of the main rock, a pair of large stairs, for the convenient landing of goods and passengers, a work much to the beauty and benefit of the town. With twenty chosen men, and two excellent divers, the governor went himself to the wreck Warwick, but they could recover but one murderer; from thence he went to the Sea-adventure, the wreck of Sir George Summers; the hull, though two or three fathoms in the water, they found unperished, and with much ado weighed a sacre, her sheet-anchor, divers bars of iron and pigs of lead, which stood the plantation in very great stead. Towards the end of July, he went to seek for a wreck, they reported, lay under water, with her hatches spiked up, but they could not find her, but from the Spanish wreck lay there by, they weighed three fair sacres more, and so returned through the tribes to Saint George's: some were also employed to seek out beds of oysters for pearl, some they found, some seed-pearl they got, but out of one little shell, above all the rest, they got about one hundred and twenty small pearl, but somewhat defective in their colour.

The time of Captain Butler's government drawing near an end, the colony presented unto him divers grievances, to intreat him to remember to the lords and company in England at his return: also they appointed two to be joined with him, with letters of credence to solicit in their behalf those grievances following: first, they were defrauded of the food of their souls; for being not fewer than one thousand and five hundred people, dispersed in length twenty miles, they had at that present but one minister, nor never had but two, and they so shortened of their promises, that but only for mere pity they would have forsaken them. Secondly, neglected in the safety of their lives, by wants of all sorts of ammunition. Thirdly, they had been censured, contrary to His Majesty's laws, and not allowed them the benefit of their book, as they are in England, but by Captain Butler. Fourthly, they were frustrated of many of their cove-
nants,

nants, and most extremely pinched and undone by the extortion of the magazine, for although their tobacco was stinted but at two shillings and sixpence the pound, yet they pitched their commodities at what rate they pleased. Fifthly, their fatherless children are left in little better condition than slaves; for if their parents die in debt, their children are made as bondmen till the debt be discharged. These things being perfected, there grew a great question of one Heriot, for plotting of factions and abusing the governor, for which he was condemned to lose his ears, yet he was used so favourably, he lost but the part of one in all.

By this time it being grown past the wonted season of the coming in of ships from England, after a general longing and expectation, especially of the governor, whose commission being near upon expiration, gave him cause to wish for a mean of deliverance from so troublesome and thankless an employment as he had hitherto found it; a sail is discovered, and long it was not before she arrived in the King's Castle-Harbour; this bark was set out by two or three private men of the company, and having landed her supplies, was to go for Virginia; by her the governor received certain advertisements of the carriage and behaviour of the Spaniards, which he had relieved, as you have heard, the year before; that quite contrary both to his merit, their vow, and his own expectation, they made clamours against him, the which being seconded by the Spanish ambassador, caused the state to fall in examination about it; whereupon, having fully cleared their ingratitude and impudence, and being assured of the choice of a successor that was to be expected within five or six weeks, he was desirous to take the opportunity of this bark, and to visit the colony in Virginia in his return for England: leaving the government to Captain Felgat, Captain Stokes, Mr. Lewis Hewes, Mr. Nedom and Mr. Ginner, but now his time being fully expired, and the fortifications finished, viz. the King's Castle, wherein were mounted upon sufficient platforms sixteen pieces of ordnance; in Charles Fort two; in Southampton Fort five; betwixt which and the castle passeth the channel into the harbour, secured by three and twenty pieces of good artillery to play upon it. In Cowper's Isle is Pembrock's Fort, where is two pieces. The channel of Saint George is guarded by Smith's Fort, and Pagit's Fort, in which are eleven pieces of ordnance. Saint George's Town is half a league within the harbour, commanded by Warwick's Fort, where there are three great pieces, and on the wharf before the governor's house eight more, besides the warning piece by the mount, and three in Saint Katharines; so that in all there are ten fortresses, and two-and-fifty pieces of ordnance, sufficient and serviceable: their forms and situations you may see more plainly described in the map; and to defend those, he left one thousand five hundred persons, with near a hundred boats, and the isle replenished with store of such fruits, provisions, and poultry, as is formerly related; well, yet for so departing and other occasions, much difference hath been betwixt him some of the company, as any of his predecessors, which I rather wish were reconciled, than to be a reporter of such unprofitable dissensions.

For

Till treachery and faction, and avarice be gone,
Till envy and ambition, and backbiting be none,
Till perjury and idleness, and injury be out,
And truly till that villainy the worst of all that rout;
Unless those vices banish'd be, whatever forts you have,
A hundred walls together put will not have power to save.

Mr. John Barnard sent to be Governor.

TO supply this place was sent by the noble adventurers John Barnard, a gentleman both of good means and quality, who arrived within eight days after Butler's departure, with two ships, and about one hundred and forty passengers, with arms and all sorts of ammunition, and other provisions sufficient; during the time of his life, which was but six weeks, in reforming all things he found defective, he shewed himself so judicial and industrious as gave great satisfaction, and did generally promise vice was in great danger to be suppressed, and virtue and the plantation much advanced; but so it happened that both he and his wife died in such short time, they were both buried in one day and one grave, and Mr. John Harrison chosen governor till further order came from England.

What happened in the Government of Mr. John Harrison.

THEY are still much troubled with a great short worm that devours their plants in the night, but all the day they lie hid in the ground, and though early in the morning they kill so many they would think there were no more, yet the next morning you shall find as many. The caterpillars to their fruits are also as pernicious; and the land-crabs in some places are as thick in their burrows as conies in a warren, and do much hurt: besides all this, there happened this year a very heavy disaster, for a ship wherein there had been much swearing and blaspheming used all the voyage, and landed what she had to leave in those isles, jovially frolicking in their cups and tobacco, by accident fired the powder, that at the very instant blew up the great cabin, and some one way, and some another, it is a wonder to think how they could be so blown out of the gun-room into the sea, where some were taken up living so pitifully burned, their lives were worse than so many deaths; some died, and some lived, but eighteen were lost at this fatal blast, the ship also immediately sunk with threescore barrels of meal sent for Virginia, and all the other provision in her was thus lost.

Now how to consider how the Spaniards, French, and Dutch, have been lost and preserved in those invincible isles, yet never regarded them but as monuments of miseries, though at this present they all desire them. How Sir Thomas Gates and Sir George Summers being ready to sink in the sea were saved, what an incredible abundance of victuals they found; how it was first planted by the English; the strange increase of rats, and their sudden departure; the five men came from England in a boat; the escape of Hilliard, and the rest of those accidents there happened, a man would think it a tabernacle of miracles, and the world's wonder, that from such a paradise of admiration who would think should spring such wonders of afflictions, as are only fit to be sacrificed upon the highest altars of sorrow, thus to be set upon the highest pinnacles of content, and presently thrown down to the lowest degree of extremity, as you see have been the yearly succceedings of those plantations, the which to overcome, as it is an incomparable honour, so it can be no dishonour if a man do miscarry by unfortunate accidents in such honourable actions, the which renown and virtue to attain hath caused so many attempts by divers nations besides ours even to pass through the very amazement of adventures. Upon the relation of this news the company hath sent one Captain Woodhouse, a gentleman of good repute and great experience in the wars, and no less provident than industrious and valiant, then

returned report all goeth well there. It is too true in the absence of the noble treasurer, Sir Edward Sackvill, now Earl of Dorset, there have been such complaints betwixt the planters and the company, that by command the Lords appointed Sir Thomas Smith again treasurer, that since then according to their order of Court, he is also elected, where now we must leave them all to their good fortune and success, till we hear further of their fortunate proceedings.

GENERAL HISTORY OF NEW ENGLAND

CONCERNING this history you are to understand the letters patent granted by His Majesty in 1606, for the limitation of Virginia, did extend from thirty-four to forty-four, which was divided in two parts, namely, the first colony and the second; the first was to the honourable city of London, and such as would adventure to the first to discover and take their choice where they would, between the degrees of 36 and 41. The second was appropriated to the city of Bristol, Exeter, and Plymouth, and the west parts of England, and all those that would adventure and plant there, and they might make their choice any where between the degrees of 36 and 41, provided there should be at least one hundred miles distance between the two colonies, each of which had laws, privileges, and authority, for the government and advancement of their several plantations alike. Now this part of America hath formerly been inhabited by the Virginians, Iroquoians, Pennsylvania, and such other names as that that ranged the coast thereof. But because it was so mountainous, rocky, and full of flocks, few have advanced much to settle it, but as is formerly related, the friendship that honourable person of virtue, Sir John Rolfe, Lord Chief Justice of England, in the year 1606, procured patents and men to settle it, and sent Captain George Popham for president, Captain Rawley Gilbert for admiral, Captain Edward Hinckley, master of the ordinance, Captain Robert Davis, lieutenant-major, Captain John Helt, marshal, Mr. Seaman, secretary, Captain James Davis to be captain of the fort, Mr. Gome Gaw, chief teacher: all these were of the council, who with some others were to stay in the country: they set sail from Plymouth the 17th of May, and fell with storming on the 11th of August. At Sagadahock, nine or ten leagues southward, they placed themselves at the mouth of a fair navigable river, but the coast all thereabouts most extreme fenny and rocky: that extreme fenny and rocky coast they could not range nor search the country, and that provided for itself, they were glad to land all but forty-five of their company back again: their noble president, Captain Popham, died, and not long after arrived two ships well provided of all necessaries to supply them, and some small time after another, by whom understanding of the death of the Lord Chief Justice, and also of Sir John Gilbert, who had been the president Rawley Gilbert was to possess according to the adventurers' direction, finding nothing but extreme extremities, they all returned for England in the year 1608: and thus this plantation was begun and ended in one year, and the colony esteemed as a cold, barren, mountainous, rocky desert.

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Monahigan,

Monahigan, they found only Cape Cod no isle but the main, there they detained three savages aboard them, called Pechmo, Monopet, and Pekenimne, but Pechmo leaped overboard and got away, and not long after with his consorts cut their boat from their stern, got her on shore, and so filled her with sand, and guarded her with bows and arrows, the English lost her: not far from thence they had three men sorely wounded with arrows. Anchoring at the Isle of Nohono, the savages in their canoes assaulted the ship till the English guns made them retire, yet here they took Sakaweston, that after he had lived many years in England went a soldier to the wars of Bohemia. At Capawe they took Coneconam and Epenow, but the people at Agawom used them kindly, so with five savages they returned for England, yet Sir Francis Popham sent divers times one Captain Williams to Monahigan only to trade and make core fish, but for any plantations there was no more speeches. For all this, as I liked Virginia well, though not their proceedings, so I desired also to see this country, and spend some time in trying what I could find for all those ill rumours and disasters.

From the relations of Captain EDWARD HARLOW
and divers others.

In the month of April 1614, at the charge of Captain Marmaduke Roydon, Captain George Langam, Mr. John Buley and Mr. William Skelton, with two ships from London, I chanced to arrive at Monahigan an isle of America, in 434 of northerly latitude: our plot was there to take whales, for which we had one Samuel Cramton and divers others expert in that faculty, and also to make trials of a mine of gold and copper; if those failed, fish and furs were then our refuge to make ourselves savers howsoever: we found this whale-fishing a costly conclusion, we saw many and spent much time in chasing them, but could not kill any, they being a kind of imbares, and not the whale that yields fins and oil, as we expected; for our gold it was rather the master's device to get a voyage that projected it, than any knowledge he had at all of any such matter; fish and furs were now our guard, and by our late arrival and long lingering about the whale, the prime of both those seasons were past ere we perceived it, we thinking that their seasons served at all times, but we found it otherwise, for by the midst of June the fishing failed, yet in July and August some were taken, but not sufficient to defray so great a charge as our stay required: of dry fish we made about forty thousand, of cor-fish about seven thousand. Whilst the sailors fished, myself with eight others of them might best be spared, ranging the coast in a small boat, we got for trifles near eleven thousand beaver-skins, one hundred martins, as many otters, and the most of them within the distance of twenty leagues: we ranged the coast both east and west much further, but eastward our commodities were not esteemed, they were so near the French who afforded them better, with whom the savages had such commerce that only by trade they made exceeding great voyages, though they were without the limits of our precincts: during the time we tried those conclusions, not knowing the coast, nor savages' habitations: with these furs, the train oil and cor-fish, I returned for England in the bark, where within six months after our departure from the Downs, we safely arrived back; the best of this fish was sold for five pounds the hundred, the rest by ill usage betwixt three pounds and fifty shillings. The other ship staid to fit herself for Spain with the dry fish which was sold at Maligo at forty rials the quintal, each hundred weighing two quintals and a half. But one Thomas Hunt the master of this ship, (when I was gone) thinking to prevent

prevent that intent I had to make there a plantation, thereby to keep this abounding country still in obscurity, that only he and some few merchants more might enjoy wholly the benefit of the trade and profit of this country, betrayed four-and-twenty of those poor savages aboard his ship, and most dishonestly and inhumanly for their kind usage of me and all our men, carried them with him to Maligo, and there for a little private gain sold those silly savages for rials of eight; but this wild act kept him ever after from any more employment to those parts. Now because at this time I had taken a draught of the coast, and called it New England, yet so long he and his comforts drowned that name with the echo of Cannaday, and some other ships from other parts also, that upon this good return the next year went thither, that at last I presented this discourse with the map, to our Most Gracious Prince Charles, humbly entreating His Highness he would please to change their barbarous names for such English as posterity might say Prince Charles was their godfather, which for your better understanding both of this discourse and the map, peruse this schedule, which will plainly shew you the correspondency of the old names to the new, as His Highness named them.

The old Names.					The new Names.				
Cape Cod	-	-	-	-	Cape James.				
The Harbour at Cape Cod	-	-	-	-	Milforth Haven.				
Chawum	-	-	-	-	Berwick.				
Accomack	-	-	-	-	Plymouth.				
Sagoquas	-	-	-	-	Oxford.				
Maffachusset's Mount	-	-	-	-	Chevit Hills.				
Maffachusset's River	-	-	-	-	Charles River.				
Totan	-	-	-	-	Falmouth.				
A great Bay by Cape Anne	-	-	-	-	Bristol.				
Cape Tragabigfanda	-	-	-	-	Cape Anne.				
Naembeck	-	-	-	-	Barnstable.				
Aggawom	-	-	-	-	Southampton.				
Smith's Isles	-	-	-	-	Smith's Isles.				
Passataquack	-	-	-	-	Hull.				
Accominticus	-	-	-	-	Boston.				
Saffanow's Mount	-	-	-	-	Snowdon Hill.				
Sowocatuck	-	-	-	-	Ipswich.				
Bahanna	-	-	-	-	Dartmouth.				
A good harbour within that Bay	-	-	-	-	Sandwich.				
Ancociscos Mount	-	-	-	-	Shuter's Hill.				
Ancocisco	-	-	-	-	The Bafe.				
Anmoughcawgen	-	-	-	-	Cambridge.				
Kenebecka	-	-	-	-	Edinburgh.				
Sagadahock	-	-	-	-	Leith.				
Pemmyquid	-	-	-	-	Saint John's Town.				
Segocket	-	-	-	-	Norwich.				
Mecadacut	-	-	-	-	Dunbarton.				
Pennobscot	-	-	-	-	Aberdeen.				
Nusket	-	-	-	-	Low Mounds.				

Those

Those being omitted, I named myself :

The old Names.					The new Names.
Monahigan	-	-	-	-	Bartie's Isles.
Matinack	-	-	-	-	Willoughby's Isles.
Metinacus	-	-	-	-	Haughton's Isles.

The rest of the names in the map, are places that had no names we did know.

But to continue the history succeedingly as near with the day and year as may be. Returning in the bark, as is said, it was my ill chance to put in at Plymouth, where imparting those my purposes to divers I thought my friends, whom as I supposed were interested in the dead patent of this unregarded country, I was so encouraged and assured to have the managing their authority in those parts during my life, and such large promises, that I engaged myself to undertake it for them. Arriving at London, though some malicious persons suggested there was no such matter to be had in that so bad abandoned country, for if there had, others could have found it so well as I; therefore it was to be suspected I had robbed the Frenchmen in New France or Canada, and the merchants set me forth seemed not to regard it; yet I found so many promised me such assistance, that I entertained Michael Couper the master of the bark, that returned with me and others of the company; how he dealt with others, or others with him, I know not; but my public proceeding gave such encouragement, that it became so well apprehended by some few of the Virginia Company, as those projects for fishing only was so well liked, they furnished Couper with four good ships to sea, before they at Plymouth had made any provision at all for me; but only a small bark set out by them of the Isle of Wight. Some of Plymouth, and divers gentlemen of the west country, a little before I returned from New England, in search for a mine of gold about an isle called Capawuck, southwards from the shoals of Cape James, as they were informed by a savage called Epenew; that having deluded them, as it seems, thus to get home, seeing they kept him as a prisoner in his own country, and before his friends, being a man of so great a stature, he was shewed up and down London for money as a wonder, and it seems of no less courage and authority, than of wit, strength, and proportion; for so well he had contrived his business, as many reported he intended to have surprized the ship; but seeing it could not be effected to his liking, before them all he leaped overboard. Many shot they made at him, thinking they had slain him, but so resolute they were to recover his body, the master of the ship was wounded, and many of his company; and thus they lost him, and not knowing more what to do, returned again to England with nothing, which so had discouraged all your west-country men, they neither regarded much their promises, and as little either me or the country, till they saw the London ships gone and me in Plymouth according to my promise, as hereafter shall be related.

I must confess I was beholden to the settlers forth of the four ships that went with Couper, in that they offered me that employment if I would accept it; and I find still my refusal incurred some of their displeasures, whose love and favour I exceedingly desired; and though they do censure me opposite to their proceedings, they shall yet still in all my words and deeds find, it is their error, not my fault that occasions their dislike; for having engaged myself in this business to the west country, I had been very dishonest to have broke my promise, nor will I spend more time in discovery or fishing, till I may go with a company for a plantation; for I know my grounds, yet every one to whom I tell them, or that reads this book, cannot put it in practice, though it

may help any that hath seen or not seen to know much of those parts ; and though they endeavour to work me out of my own designs, I will not much envy their fortunes ; but I would be sorry their intruding ignorance should by their defaultments, bring those certainties to doubtfulness. So that the business prosper I have my desire, be it by whomsoever that are true subjects to our King and country : the good of my country is that I seek, and there is more than enough for all, if they could be contented.

New England is that part of America in the ocean sea, opposite to Nova Albion in the south sea, discovered by the most memorable Sir Francis Drake in his voyage about the world, in regard whereof this is stiled New England, being in the same latitude New France of it is northward, southward is Virginia, and all the adjoining continent with New Granada, New Spain, New Andalusia, and the West Indies. Now because I have been so oft asked such strange questions of the goodness and greatness of those spacious tracts of land, how they can be thus long unknown, or not possessed by the Spaniards, and many such like demands ; I entreat your pardon if I chance to be too plain or tedious in relating my knowledge for plain men's satisfaction.

Florida is the next adjoining to the Indies, which unprosperously was attempted to be planted by the French, a country far bigger than England, Scotland, France and Ireland, yet little known to any Christian, but by the wonderful endeavours of Ferdinando de Soto, a valiant Spaniard, whose writings in this age is the best guide known to search those parts.

Virginia is no isle, as many do imagine, but part of the continent adjoining to Florida, whose bounds may be stretched to the magnitude thereof, without offence to any Christian inhabitant, for from the degrees of thirty to forty-eight, His Majesty hath now enlarged his letters patent. The coast extending south-west and north-east about sixteen or seventeen hundred miles, but to follow it aboard, the shore may well be three thousand miles at the least ; of which twenty miles is the most gives entrance into the Bay of Chesapeak, where is the London plantation, within which is a country, as you may perceive by the map, of that little I discovered, may well suffice three hundred thousand people to inhabit ; but of it, and the discoveries of Sir Ralph Laine and Mr. Heriot, Captain Gosnold, and Captain Waymouth, they have writ so largely, that posterity may be bettered by the fruits of their labour. But for divers others that have ranged those parts since, especially this country now called New England, within a kenning sometimes of the shore ; some touching in one place, some in another ; I must entreat them pardon me for omitting them, or if I offend in saying, that their true descriptions were concealed, or never were well observed, or died with the authors, so that the coast is yet still but even as a coast unknown and undiscovered. I have had six or seven several plots of those northern parts, so unlike each to other, or resemblance of the country, as they did me no more good than so much waste paper, though they cost me more ; it may be it was not my chance to see the best ; but lest others may be deceived as I was, or through dangerous ignorance hazard themselves as I did, I have drawn a map from point to point, isle to isle, and harbour to harbour, with the foundings, sands, rocks, and land-marks, as I passed close aboard the shore in a little boat ; although there be many things to be observed, which the haste of other affairs did cause me to omit : for being sent more to get present commodities, than knowledge of any discoveries for any future good, I had not power to search as I would ; yet it will serve to direct any shall go that way to safe harbours and the savages habitations ; what merchandize and commodities for their labours they may find, this following discourse shall plainly demonstrate.

Thus

Thus you may see of these three thousand miles more than half is yet unknown to any purpose, no not so much as the borders of the sea are yet certainly discovered : as for the goodness and true substance of the land, we are for most part yet altogether ignorant of them, unless it be those parts about the Bay of Chesapeak and Sagadahock, but only here and there where we have touched or seen a little, the edges of those large dominions which do stretch themselves into the main, God doth know how many thousand miles, whereof we can yet no more judge, than a stranger that faileth betwixt England and France, can describe the harbours and dangers by landing here or there in some river or bay, tell thereby the goodness and substance of Spain, Italy, Germany, Bohemia, Hungary, and the rest ; nay, there are many have lived forty years in London, and yet have scarce been ten miles out of the city : so are there many have been in Virginia many years, and in New England many times, that do know little more than the place they do inhabit, or the port where they fished ; and when they come home, they will undertake they know all Virginia and New England, as if they were but two parishes or little islands. By this you may perceive how much they err, that think every one that hath been in Virginia or New England, understandeth or knoweth what either of them are ; or that the Spaniards know one half quarter of those large territories they possess ; no, not so much as the true circumference of Terra Incognita, whose large dominions may equalize the goodness and greatness of America for any thing yet known. It is strange with what small power he doth range in the East Indies, and few will understand the truth of his strength in America ; where having so much to keep with such a pampered force, they need not greatly fear his fury in Sommer Isles, Virginia, or New England, beyond whose bounds America doth stretch many thousand miles. Into the frozen parts whereof, one Mr. Hutson an English mariner, did make the greatest discovery of any Christian I know, where he unfortunately was left by his cowardly company, for his exceeding deserts, to end and die a most miserable death.

For Africa, had not the industrious Portuguese ranged her unknown parts, who would have sought for wealth amongst those fried regions of black brutish negroes, where notwithstanding all their wealth and admirable adventures and endeavours more than one hundred and forty years, they know not one-third part of those black habitations. But it is not a work for every one to manage such an affair, as make a discovery and plant a colony ; it requires all the best parts of art, judgment, courage, honesty, constancy, diligence, and industry, to do but near well ; some are more proper for one thing than another, and therein best to be employed ; and nothing breeds more confusion than misplacing and misemploying men in their undertakings. Columbus, Cortes, Pizarro, Zoto, Magilanus, and the rest served more than an apprenticeship to learn how to begin their most memorable attempts in the West Indies, which, to the wonder of all ages, successfully they effected, when many hundreds of others, far above them in the world's opinion, being instructed but by relation, came to shame and confusion in actions of small moment, who doubtless in other matters were both wise, discreet, generous and courageous. I say not this to detract any thing from their incomparable merits, but to answer those questionless questions, that keep us back from imitating the worthiness of their brave spirits, that advanced themselves from poor soldiers to great captains, their posterity to great lords, their King to be one of the greatest potentates on earth, and the fruits of their labours his greatest power, glory, and renown.

The Description of New England.

THAT part we call New England is betwixt the degrees of forty-one and forty-five, the very mean betwixt the north pole and the line ; but that part this discourse speaketh of, stretcheth but from Penobscot to Cape Cod, some seventy-five leagues by a right line distant each from other ; within which bounds I have seen at least forty several habitations upon the sea coast, and founded about five-and-twenty excellent good harbours, in many whereof there is anchorage for five hundred sail of ships of any burden ; in some of them for one thousand, and more than two hundred isles overgrown with good timber of divers sorts of wood, which do make so many harbours, as required a longer time than I had to be well observed.

The principal habitation northward we were at, was Penobscot : southward along the coast and up the rivers, we found Mecadacut, Segocket, Pemaquid, Nuscocus, Sagadahock, Aumoughcowgen, and Kenebeke ; and to those countries belong the people of Segotago, Pagh huntanuck, Pocopassum, Taughtanakagnet, Warbigganus, Nassaque, Masherosqueck, Wawrigweck, Moshoquen, Wakcogo, Passharanack, &c. To these are allied in confederacy, the countries of Ancocisco, Accomynticus, Passataquack, Aggawom, and Naemkeck : all these for any thing I could perceive, differ little in language, fashion, or government, though most of them be lords of themselves, yet they hold the Bashabes of Penobscot the chief and greatest amongst them.

The next I can remember by name, are Mattahunts, two pleasant isles of groves, gardens, and corn fields a league in the sea from the main. Then Totant, Massachusetts, Topent, Secassaw, Toheet, Nafnocomacack, Accomack, Chawum, Patuxet, Massafoyts, Pakanokick ; then Cape Cod, by which is Pawmet and the isle Nawset, of the language and alliance of them of Chawum ; the others are called Massachusetts, and differ somewhat in language, custom, and condition : for their trade and merchandize, to each of their principal families or habitations, they have divers towns and people belonging, and by their relations and descriptions, more than twenty several habitations and rivers that stretch themselves far into the country, even to the borders of divers great lakes, where they kill and take most of their otters from Penobscot to Sagadahoc. This coast is mountainous, and isles of huge rocks, but overgrown for most part with most sorts of excellent good woods, for building houses, boats, barks or ships, with an incredible abundance of most sorts of fish, much fowl, and sundry sorts of good fruits for man's use.

Betwixt Sagadahock and Sowocatuck, there is but two or three sandy bays, but betwixt that and Cape James very many ; especially the coast of the Massachusetts is so indifferently mixed with high clay or sandy cliffs in one place, and the tracts of large long ledges of divers sorts, and quarries of stones in other places, so strangely divided with tintured veins of divers colours ; as free-stone for building, slate for tiling, smooth stone to make furnaces and forges for glass and iron, and iron ore sufficient conveniently to melt in them ; but the most part so resembleth the coast of Devonshire, I think most of the cliffs would make such lime-stone ; if they be not of these qualities, they are so like they may deceive a better judgment than mine : all which are so near adjoining to those other advantages I observed in these parts, that if the ore prove as good iron and steel in those parts as I know it is within the bounds of the country, I dare engage my head (having but men skilful to work the simples there growing) to have all things belonging to the building and rigging of ships of any proportion and

good merchandize for their freight, within a square of ten or fourteen leagues, and it were no hard matter to prove it within a less limitation.

And surely by reason of those sandy cliffs and cliffs of rocks, both which we saw so planted with gardens and corn-fields, and so well inhabited with a goodly, strong, and well-proportioned people, besides the greatness of the timber growing on them, the greatness of the fish, and the moderate temper of the air (for of five-and-forty not a man was sick but two, that were many years diseased before they went, notwithstanding our bad lodging and accidental diet), who can but approve this a most excellent place, both for health and fertility: and of all the four parts of the world I have yet seen not inhabited, could I have but means to transport a colony, I would rather live here than any where; and if it did not maintain itself, were we but once indifferently well fitted, let us starve.

The main staple from hence to be extracted for the present, to produce the rest, is fish, which howbeit may seem a mean and a base commodity, yet who will but truly take the pains and consider the sequel, I think will allow it well worth the labour. It is strange to see, what great adventures the hopes of setting forth men of war to rob the industrious innocent would procure, or such massy promises in gross, though more are choaked than well fed by such hasty hopes. But who doth not know that the poor Hollanders, chiefly by fishing at a great charge and labour in all weathers in the open sea, are made a people so hardy and industrious, and by the venting this poor commodity to the Easterlings for as mean, which is wood, flax, pitch, tar, rosin, cordage, and such like, which they exchange again to the French, Spaniards, Portugueze, and English, &c. for what they want, are made so mighty, strong, and rich, as no state but Venice, of twice their magnitude, is so well furnished with so many fair cities, goodly towns, strong fortresses, and that abundance of shipping and all sorts of merchandize, as well of gold, silver, pearls, diamonds, precious stones, silks, velvets, and cloth of gold, as fish, pitch, wood, or such gross commodities? What voyages and discoveries, east and west, north and south, yea, about the world, make they? What an army by sea and land have they long maintained, in despite of one of the greatest princes of the world; and never could the Spaniard, with all his mines of gold and silver, pay his debts, his friends, and army, half so truly as the Hollanders still have done by this contemptible trade of fish. Divers (I know) may alledge many other assistances; but this is the chiefest mine, and the sea the source of those silver streams of all their virtue, which hath made them now the very miracle of industry, the only pattern of perfection for these affairs; and the benefit of fishing is that *primum mobile* that turns all their spheres to this height, of plenty, strength, honour, and exceeding great admiration.

Herring, cod, and ling is that triplicity that makes their wealth and shipping multiplicity such as it is; and from which (few would think it) they should draw so many millions yearly as they do, as more in particular in the trials of New England you may see; and such an incredible number of ships, that breeds them so many sailors, mariners, soldiers, and merchants, never to be wrought out of that trade, and fit for any other. I will not deny but others may gain as well as they that will use it, though not so certainly nor so much in quantity, for want of experience; and this herring they take upon the coast of England and Scotland, their cod and ling upon the coast of Iceland and in the North seas, if we consider what gains the Hamburgans, the Biscayners, and the French make by fishing; nay, but how many thousands this fifty or sixty years have been maintained by Newfoundland, where they take nothing but small cod whereof the greatest they make cor-fish, and the rest is hard dried, which we call

poor

poor-john, would amaze a man with wonder. If then from all those parts such pains is taken for this poor gain of fish, especially by the Hollanders, that hath but little of their own, for building of ships and setting them to sea; but at the second, third, fourth, or fifth hand, drawn from so many parts of the world ere they come together to be used in those voyages: if these (I say) can gain, why should we more doubt than they; but do much better, that may have most of all those things at our doors for taking and making, and here are no hard landlords to rack us with high rents, or extorting fines, nor tedious pleas in law to consume us with their many years disputation for justice; no multitudes to occasion such impediments to good order as in popular states: so freely hath God and His Majesty bestowed those blessings on them will attempt to obtain them, as here every man be master of his own labour and land, or the greatest part (if His Majesty's royal meaning be not abused), and if he have nothing but his hands, he may set up his trade; and by industry quickly grow rich, spending but half that time well, which in England we abuse in idleness, worse, or as ill. Here is ground as good as any lieth in the height of forty-one, forty-two, forty-three, &c., which is as temperate and as fruitful as any other parallel in the world.

As for example, on this side the line, west of it in the South Sea, is Nova Albion, discovered, as is said, by Sir Francis Drake: east from it is the most temperate part of Portugal, the ancient kingdoms of Galicia, Biscay, Navarre, Arragon, Catalonia, Castillia the Old, and the most moderate of Castillia the New, and Valencia, which is the greatest part of Spain, which, if the histories be true, in the Roman's time abounded no less with gold and silver mines, than now the West Indies, the Romans then using the Spaniards to work in those mines, as now the Spaniards do the Indians. In France, the provinces of Gascony, Languedock, Avignon, Provence, Dauphiny, Pyamont, and Turenne, are in the same parallel, which are the best and richest parts of France. In Italy the provinces of Genoa, Lombardy, and Verona, with a great part of the most famous state of Venice, the dukedoms of Bononia, Mantua, Ferrara, Ravenna, Bologna, Florence, Pisa, Sienna, Urbina, Ancona, and the ancient city and country of Rome, with a great part of the kingdom of Naples. In Sclavonia, Istria and Dalmatia, with the kingdoms of Albania. In Grecia, those famous kingdoms of Macedonia, Bullulgaria, Theffalia, Thracia, or Romania, where is seated the most pleasant and plentiful city in Europe, Constantinople.

In Asia, in the same latitude, are the temperatest parts of Natolia, Armenia, Persia, and China, besides divers other large countries and kingdoms in those most mild and temperate regions of Asia. Southward in the same height is the richest of gold mines, Chili and Baldinia, and the mouth of the great river Plate, &c., for all the rest of the world in that height is unknown. Besides these reasons, mine own eyes that have seen a great part of those cities and their kingdoms (as well as it) can find no advantage they have in nature but this, they are beautified by the long labour and diligence of industrious people and art; this is only as God made it when he created the world: therefore I conclude, if the heart and entrails of those regions were sought, if their land were cultured, planted, and manured by men of industry, judgment, and experience; what hope is there, or what need they doubt, having the advantages of the sea, but it might equalize any of these famous kingdoms in all commodities, pleasures, and conditions, seeing even the very hedges do naturally afford us such plenty, as no ship need return away empty, and only use but the season of the sea-fish will return an honest gain, besides all other advantages, her treasures having yet never been opened, nor her originals, wasted, consumed, nor abused.

And whereas it is said the Hollanders serve the Easterlings themselves, and other

parts that want, with herring, ling, and wet cod; the Easterlings, a great part of Europe with sturgeon and caviare, as the Black Sea doth Grecia, Podolia, Segovia, Natolia, and the Hellespont. Cape Blank, Spain, Portugal, and the Levant with mullet and puttargo. Newfoundland, the most part of the chief southern ports in Europe with a thin poor-john, which hath been so long so much overlaid with fishers, as the fishing decayeth, so that many oft times are constrained to return with a small freight. Norway and Poland affords pitch and tar, masts and yards; Sweden and Russia, iron and ropes; France and Spain, canvas, wine, steel, iron, and oil; Italy and Greece, silks and fruits. I dare boldly say, because I have seen naturally growing or breeding in those parts the same materials that all these are made of, they may as well be had here, or the most part of them, within the distance of seventy leagues for some few ages, as from all those parts, using but the same means to have them that they do; but surely in Virginia their most tender and daintiest fruits or commodities would be as perfect as theirs, by reason of the heat, if not in New England, and with all those advantages.

First, the ground is so fertile, that questionless it is capable of producing any grain, fruits, or seeds you will sow or plant, growing in the regions aforementioned; but it may not be to that perfection of delicacy, because the summer is not so hot, and the winter is more cold in those parts we have yet tried near the sea-side, than we find in the same height in Europe or Asia; yet I made a garden upon the top of a rocky isle, in three-and-forty degrees and an half, four leagues from the main in May, that grew so well, as it served us for fallads in June and July. All sorts of cattle may here be bred and fed in the isles or peninsulas securely for nothing. In the interim, till they increase (if need be) observing the seasons, I durst undertake to have corn enough from the savages for three hundred men, for a few trifles; and if they should be untoward, as it is most certain they will, thirty or forty good men will be sufficient to bring them all in subjection, and make this provision, if they understand what to do; two hundred whereof may eight or nine months in the year be employed in helping the fishermen, till the rest provide other necessities, fit to furnish us with other commodities.

In March, April, May, and half June, here is cod in abundance; in May, June, July, and August, mullet and sturgeon, whose roes does make caviary and puttargo, herring if any desire them; I have taken many out of the bellies of cods, some in nets; but the savages compare the store in the sea with the hairs of their heads; and surely there are an incredible abundance upon this coast. In the end of August, September, October, and November, you may have cod again to make core-fish or poor-john: hake you may have when the cod fails in summer, if you will fish in the night, which is better than cod. Now each hundred you take here is as good as two or three hundred in Newfoundland; so that half the labour in hooking, splitting and towing is saved: and you may have your fish at what market you will, before they have any in Newfoundland, where their fishing is chiefly but in June and July, where it is here in March, April, May, September, October, and November, as is said; so that by reason of this plantation, the merchants may have their freight both out and home, which yield an advantage worth consideration. Your core-fish you may in like manner transport as you see cause, to serve the ports in Portugal, as Lisbon, Avera, Porta-Port, and divers others (or what market you please), before your islanders return: they being tied to the season in the open sea, and you having a double season, and fishing before your doors, may every night sleep quietly ashore with good cheer, and what fires you will, or when you please, with your wives and family: they only and their ships in the main ocean, that must carry and contain all they use, besides their freight. The mullets here are in that abundance you may take them with nets sometimes by hundreds,

dreds, where at Cape Blank they hook them; yet those are but a foot and a half in length; these two, three, or four, as oft I have measured, which makes me suspect they are some other kind of fish, though they seem the same, both in fashion and goodness. Much salmon some have found up the rivers as they have passed, and here the air is so temperate as all these at any time may be preserved. Now, young boys and girls, savages, or any other, be they never such idlers, may turn, carry, or return a fish, without either shame, or any great pain: he is very idle, that is past twelve years of age, and cannot do so much; and she is very old, that cannot spin a thread to make engines to catch a fish.

For their transportation, the ships that go there to fish may transport the first; who for their passage will spare the charge of double manning their ships, which they must do in Newfoundland to get their freight; but one-third part of that company are only proper to serve a stage, carry a barrow, and turn poor-john; notwithstanding, they must have meat, drink, clothes, and passage, so well as the rest. Now all I desire is but this, that those that voluntarily will send shipping, should make here the best choice they can, or accept such as shall be presented them to serve them at that rate: and their ships returning, leave such with me, with the value of that they should receive coming home, in such provisions and necessary tools, arms, bedding, apparel, salt, nets, hooks, lines, and such like, as they spare of the remainings; who till the next return may keep their boats, and do them many other profitable offices. Provided, I have men of ability to teach them their functions, and a company fit for soldiers to be ready upon any occasion, because of the abuses that have been offered the poor savages, and the liberty that both French and English, or any that will, have to deal with them as they please; whose disorders will be hard to reform, and the longer the worse. Now such order with facility might be taken, with every port, town, or city, with free power to convert the benefit of their freights to what advantage they please, and increase their numbers as they see occasion, who ever as they are able to subsist of themselves, may begin the new towns in New England, in memory of their old: which freedom being confined but to the necessity of the general good, the event (with God's help) might produce an honest, a noble, and a profitable emulation.

Salt upon salt may assuredly be made, if not at the first in ponds, yet till they be provided this may be used: then the ships may transport kine, horse, goats, coarse cloth, and such commodities as we want; by whose arrival may be made that provision of fish to freight the ships that they stay not; and then if the sailors go for wages, it matters not, it is hard if this return defray not the charge: but care must be had they arrive in the spring, or else that provision be made for them against winter. Of certain red berries called kermes, which is worth ten shillings the pound, but of these have been sold for thirty or forty shillings the pound, may yearly be gathered a good quantity. Of the muskrat may be well raised gains worth their labour, that will endeavour to make trial of their goodness. Of beavers, otters, and martins, black foxes, and furs of price, may yearly be had six or seven thousand, and if the trade of the French were prevented, many more: twenty-five thousand this year were brought from those northern parts into France, of which trade we may have as good part as the French, if we take good courses. Of mines of gold and silver, copper, and probabilities of lead, crystal and allum, I could say much, if relations were good assurances; it is true indeed, I made many trials according to the instructions I had, which doth persuade me I need not despair but that there are metals in the country; but I am no alchymist, nor will promise more than I know: which is, who will undertake the rectifying of an iron forge, if those that buy meat and drink, coals, ore, and all necessaries at a
 dear

dear rate, gain, where all these things are to be had for taking up, in my opinion, cannot lose.

Of woods, seeing there is such plenty of all sorts, if those that build ships and boats buy wood at so great a price as it is in England, Spain, France, and Holland, and all other provisions for the nourishment of man's life, live well by their trade; when labour is all required to take these necessities, without any other tax, what hazard will be here but to do much better, and what commodity in Europe doth more decay than wood? for the goodness of the ground, let us take it fertile or barren, or as it is, seeing it is certain it bears fruits to nourish and feed man and beast as well as England, and the sea those several sorts of fishes I have related: thus seeing all good things for man's sustenance may with this facility be had by a little extraordinary labour, till that transported be increased, and all necessities for shipping only for labour, to which may be added the assistance of the savages, which may easily be had, if they be discreetly handled in their kinds, towards fishing, planting, and destroying woods, what gains might be raised if this were followed (when there is but once men to fill your storehouses dwelling there, you may serve all Europe better and far cheaper than can the island fishers, or the Hollanders, Cape Blank, or Newfoundland, who must be at much more charge than you) may easily be conjectured by this example.

Two thousand will fit out a ship of 200 tons, and one of 100 tons, if of the dry fish they both make freight, that of 200, and go for Spain, sell it but at ten shillings a quintal, but commonly it gives fifteen or twenty, especially when it cometh first, which amounts to 3 or 4000l., but say but ten, which is the lowest, allowing the rest for waste, it amounts at that rate to 2000l., which is the whole charge of your two ships and the equipage, then the return of the money and the freight of the ship for the vintage or any other voyage is clear gain, with your ship of 100 tons of train oil and cor-fish, besides the beavers and other commodities, and that you may have at home within six months, if God please to send but an ordinary passage; then saving half this charge by the not staying of your ships, your victuals, overplus of men and wages, with her freight thither with necessities for the planters, the salt being there made, as also may the nets and lines within a short time; if nothing may be expected but this, it might in time equalize your Hollanders' gains, if not exceed them, having their freights always ready against the arrival of the ships, this would so increase our shipping and sailors, and so encourage and employ a great part of our idlers and others that want employment fitting their qualities at home, where they shame to do that they would do abroad, that could they but once taste the sweet fruits of their own labour, doubtless many thousands would be advised by good discipline to take more pleasure in honest industry than in their humours of dissolute idleness.

But to return a little more to the particulars of this country, which I intermingle thus with my projects and reasons, not being so sufficiently yet acquainted in those parts, to write fully the estate of the sea, the air, the land, the fruits, their rocks, the people, the government, religion, territories, limitations, friends and foes: but as I gathered from their niggardly relations in a broken language, during the time I ranged those countries, &c. the most northern part I was at, was the bay of Pennobscot, which is east and west, north and south, more than ten leagues: but such were my occasions, I was constrained to be satisfied of them I found in the bay, that the river ran far up into the land, and was well inhabited with many people, but they were from their habitations, either fishing amongst the isles, or hunting the lakes and woods for deer and beavers: the bay is full of great isles of one, two, six or eight miles in length, which divides it into many fair and excellent good harbours. On the east of it are the Tarrentines, their mortal

enemies, where inhabit the French, as they report, that live with those people as one nation or family; and northwest of Pennobscot is Mecaddacut, at the foot of a high mountain, a kind of fortrefs against the Tarrentines, adjoining to the high mountains of Pennobscot, against whose feet doth beat the sea; but over all the land, isles, or other impediments, you may well see them fourteen or eighteen leagues from their situation. Segocket is the next, then Nuskoucus, Pemmaquid, and Sagadahock: up this river, where was the western plantation, are Aumoughcawgen, Kinnebeke, and divers others, where are planted some corn fields. Along this river, thirty or forty miles, I saw nothing but great high cliffs of barren rocks overgrown with wood, but where the savages dwell there the ground is excellent salt, and fertile. Westward of this river is the country of Aucocisco, in the bottom of a large deep bay, full of many great isles which divides it into many good harbours. Sawocotuck is the next, in the edge of a large sandy bay, which hath many rocks and isles, but few good harbours, but for barks I yet know; but all this coast to Pennobscot, and as far as I could see eastward of it, is nothing but such high craggy clifty rocks and stony isles, that I wonder such great trees could grow upon so hard foundations. It is a country rather to affright than delight one, and how to describe a more plain spectacle of desolation, or more barren, I know not; yet are those rocky isles so furnished with good woods, springs, fruits, fish and fowl, and the sea the strangest fish-pond I ever saw, that it makes me think, though the coast be rocky and thus affrightable, the vallies and plains and interior parts may well notwithstanding be very fertile. But there is no country so fertile hath not some part barren, and New-England is great enough to make many kingdoms and countries, were it all inhabited. As you pass the coast still westward, Accominticus and Passataquack are two convenient harbours for small barks; and a good country within their craggy cliffs. Augoan is the next: this place might content a right curious judgment, but there are many sands at the entrance of the harbour, and the worst is, it is embayed too far from the deep sea; here are many rising hills, and on their tops and descents are many corn fields and delightful groves: on the east is an isle of two or three leagues in length, the one-half plain marsh ground, fit for pasture or salt ponds, with many fair high groves of mulberry-trees and gardens; there is also oaks, pines, walnuts, and other wood to make this place an excellent habitation, being a good and safe harbour.

Naiemkeck, though it be more rocky ground, for Augoan is sandy, not much inferior neither for the harbour, nor any thing I could perceive but the multitude of people: from hence doth stretch into the sea the fair head-land Tragabigzanda, now called Cape Anne, fronted with the three isles we called the Three Turks Heads; to the north of this doth enter a great bay, where we found some habitations and corn fields, they report a fair river, and at least thirty habitations doth possess this country. But because the French had got their trade, I had no leisure to discover it: the isles of Mattahunts are on the west side of this bay, where are many isles and some rocks that appear a great height above the water like the pyramids in Ægypt, and amongst them many good harbours, and then the country of the Massachusetts, which is the paradise of all those parts, for here are many isles planted with corn, groves, mulberries, salvage gardens and good harbours; the coast is for the most part high clay sandy cliffs, the sea coast as you pass shews you all along large corn fields, and great troops of well-proportioned people: but the French having remained here near six weeks, left nothing for us to take occasion to examine the inhabitants relations, viz. if there be three thousand people upon those isles, and that the river doth pierce many days journey the entrails of that country: we found the people in those parts very kind, but in their fury no less valiant, for upon a quarrel we fought with forty or fifty of them, till they had spent all their arrows, and

then we took fix or seven of their canoes, which towards the evening they ranfomed for beaver-fkins, and at Quonahafit falling out there but with one of them, he with three others crossed the harbour in a canoe to certain rocks whereby we must pafs, and there let fly their arrows for our fhoot, till we were out of danger, yet one of them was flain, and another fhoot through his thigh.

Then come you to Accomacke, an excellent good harbour, good land, and no want of any thing but induftrious people: after much kindness, we fought alfo with them, though fome were hurt, fome flain, yet within an hour after they became friends. Cape Cod is the next presents itfelf, which is only a headland of high hills, overgrown with fhubby pines, hurts and fuch trash, but an excellent harbour for all weathers. This cape is made by the main fea on the one fide, and a great bay on the other in form of a fickle; on it doth inhabit the people of Pawmet, and in the bottom of the bay them of Chawum; towards the fouth and fouth-west of this Cape is found a long and dangerous fhool of rocks and fand, but fo far as I incircled it, I found thirty fathoms water and a ftrong current, which makes me think there is a channel about this fhool, where is the beft and greateft fifh to be had winter and fummer in all the country; but the favages fay there is no channel, but that the fhools begin from the main at Pawmet to the ifle of Nawfet, and fo extends beyond their knowledge into the fea. The next to this is Capawucke, and thofe abounding countries of copper, corn, people, and minerals, which I went to difcover this laft year, but becaufe I mifcarried by the way I will leave them till God please I have better acquaintance with them.

The Maffachufets, they report, fometimes have wars with the Bafhabes of Pennobfcot, and are not always friends with them of Chawum and their alliance; but now they are all friends, and have each trade with other fo far as they have fociety on each other's frontiers, for they make no fuch voyages as from Pennobfcot to Cape Cod, feldom to Maffachufet. In the north, as I have faid, they have begun to plant corn, whereof the fouth part hath fuch plenty as they have what they will from them of the north; and in the winter, much more plenty of fifh and fowl; but both winter and fummer hath it in one part or other all the year, being the mean and moft indifferent temper betwixt heat and cold, of all the regions betwixt the line and the pole; but the furs northward are much better, and in much more plenty than fouthward.

The remarkableft ifles and mountains for land-marks are thefe: the higheft ifle is Sorico in the bay of Pennobfcot, but the three ifles, and the ifles of Matinack are much further in the fea: Metynacus is alfo three plain ifles, but many great rocks: Monahigan is a round high ifle, and clofe by it Monanis, betwixt which is a fmall harbour where we rid; in Dameril's Ifles is fuch another, Sagadahocke is known by Satquin, and four or five ifles in their mouth. Smith's Ifles are a heap together, none near them againft Accomintycus: the Three Turks Heads are three ifles, feen far to feaward in regard of the headland. The chief headlands are only Cape Tragabigzanda and Cape Cod, now called Cape James and Cape Anne.

The chief mountains, them of Pennobfcot, the twinkling mountain of Acocifco, the great mountain of Saffanow, and the high mountain of Maffachufet; each of which you fhall find in the map, their places, form, and altitudes. The waters are moft pure, proceeding from the entrails of rocky mountains; the herbs and fruits are of many forts and kinds, as alkermes, currants, mulberries, vines, refpifes, goofeberries, plumbs, walnuts, chefnuts, fmall nuts, pumpeons, gourds, ftrawberries, beans, peas, and maize; a kind or two of flax, wherewith they make nets, lines, and ropes, both fmall and great, very ftrong for their quantities.

Oak is the chief wood, of which there is great difference, in regard of the soil where it groweth, fir, pine, walnut, chefnut, birch, ash, elm, cypress, cedar, mulberry, plumb-tree, hazel, fassfras, and many other sorts.

Eagles, grips, divers sorts of hawks, cranes, geese, brants, cormorants, ducks, cranes, swans, sheldrakes, teal, mews, gulls, turkies, dive-doppers, and many other sorts whose names I know not.

Whales, grompus, porkpiscs, turbet, sturgeon, cod, hake, haddock, cole, cusk or small ling, shark, mackarel, herring, mullet, bafe, pinnacks, cunners, perch, eels, crabs, lobsters, muscles, wilks, oysters, clamps, periwinkles, and divers others, &c.

Moos, a beast bigger than a stag, deer red and fallow, beavers, wolves, foxes both black and other, aroughcunds, wild cats, bears, otters, martins, fitches, musquassus, and divers other sorts of vermin whose names I know not: all these and divers other good things do here for want of use still increase and decrease with little diminution, whereby they grow to that abundance, you shall scarce find any bay, shallow, shore or cove of sand, where you may not take many clamps or lobsters, or both, at your pleasure, and in many places load your boat if you please; nor isles where you find not fruits, birds, crabs, and muscles, or all of them; for taking at a low water cod, cusk, hollibut, scate, turbet, mackarel, or such like, are taken plentifully in divers sandy bays, store of mullet, bafes, and divers other sorts of such excellent fish as many as their net can hold: no river where there is not plenty of sturgeon, or salmon, or both, all which are to be had in abundance observing but their seasons: but if a man will go at Christmas to gather cherries in Kent, though there be plenty in summer, he may be deceived; so here these plenties have each their seasons, as I have expressed; we for the most part had little but bread and vinegar, and though the most part of July when the fishing decayed, they wrought all day, lay abroad in the isles all night, and lived on what they found, yet were not sick: but I would wish none long put himself to such plunges, except necessity constrain it: yet worthy is that person to starve that here cannot live if he have sense, strength, and health, for there is no such penury of these blessings in any place but that one hundred men may in two or three hours make their provisions for a day; and he that hath experience to manage these affairs with forty or thirty honest industrious men, might well undertake (if they dwell in these parts) to subject the savages, and feed daily two or three hundred men with as good corn, fish and flesh as the earth hath of those kinds, and yet make that labour but their pleasure, provided that they have engines that be proper for their purposes. Who can desire more content that hath small means, or but only his merit to advance his fortune, than to tread and plant that ground he hath purchased by the hazard of his life; if he have but the taste of virtue and magnanimity, what to such a mind can be more pleasant than planting and building a foundation for his posterity, got from the rude earth by God's blessing and his own industry without prejudice to any, if he have any grain of faith or zeal in religion, what can he do less hurtful to any, or more agreeable to God, than to seek to convert those poor savages to know Christ and humanity, whose labours with discretion will triple require thy charge and pain; what so truly suits with honour and honesty, as the discovering things unknown, erecting towns, peopling countries, informing the ignorant, reforming things unjust, teaching virtue and gain to our native mother country; a kingdom to attend her, find employment for those that are idle, because they know not what to do: so far from wronging any, as to cause posterity to remember thee, and remembering thee, ever honour that remembrance with praise? Consider what were the beginnings and endings of the monarchies of the Chaldeans, the Syrians, the

the Grecians and Romans, but this one rule; what was it they would not do for the good of their, commonwealth, or their mother city? For example, Rome, what made her such a monarchess, but only the adventures of her youth, not in riots at home, but in dangers abroad, and the justice and judgment out of their experience when they grew aged; what was their ruin and hurt but this, the excess of idleness, the fondness of parents, the want of experience in magistrates, the admiration of their undeserved honours, the contempt of true merit, their unjust jealousies, their politic incredulities, their hypocritical seeming goodness and their deeds of secret lewdness; finally in fine, growing only formal temporists, all that their predecessors got in many years they lost in a few days: those by their pains and virtues became lords of the world, they by their ease and vices became slaves to their servants. This is the difference betwixt the use of arms in the field and on the monuments of stones, the golden age and the leaden age, prosperity and misery, justice and corruption, substance and shadows, words and deeds, experience and imagination, making commonwealths, and marring commonwealths, the fruits of virtue, and the conclusions of vice.

Then who would live at home idly, or think in himself any worth to live, only to eat, drink, and sleep, and so die; or by consuming that carelessly, his friends got worthily, or by using that miserably that maintained virtue honestly, or for being descended nobly, and pine with the vain vaunt of great kindred in penury, or to maintain a silly shew of bravery, toil out thy heart, soul and time basely, by shifts, tricks, cards and dice, or by relating news of other men's actions, shirk here and there for a dinner or supper, deceive thy friends by fair promises and dissimulation, in borrowing where thou never meanest to pay, offend the laws, surfeit with excess, burthen thy country, abuse thyself, despair in want, and then cousin thy kindred, yea, even thy own brother, and wish thy parents' death (I will not say damnation), to have their estates, though thou seeest what honours and rewards the world yet hath for them, that will seek them and worthily deserve them.

I would be sorry to offend, or that any should mistake my honest meaning, for I wish good to all, hurt to none: but rich men for the most part are grown to that dotage through their pride in their wealth, as though there were no accident could end it or their life.

And what hellish care do such take to make it their own misery and their countries' spoil, especially when there is most need of their employment, drawing by all manner of inventions from the prince and his honest subjects, even the vital spirits of their power and estate, as if their bags or brags were so powerful a defence, the malicious could not assault them, when they are the only bait to cause us not only to be assaulted, but betrayed and murdered in our own security ere we will perceive it.

May not the miserable ruin of Constantinople, their impregnable walls, riches and pleasures last taken by the Turk, which were then but a bit in comparison of their mightiness now, remember us of the effects of private covetousness, at which time the good Emperor held himself rich enough, to have such rich subjects, so formal in all excess of vanity, all kind of delicacy and prodigality: his poverty when the Turk besieged the citizens (whose merchandizing thoughts were only to get wealth) little conceiving the desperate resolution of a valiant expert enemy, left the Emperor so long to his conclusions, having spent all he had to pay his young raw discontented soldiers, that suddenly he, they, and their city were all a prey to the devouring Turks, and what they would not spare for the maintenance of them who adventured their lives to defend them, did serve only their enemies to torment them, their friends and country, and all Christendom to this present day. Let this lamentable example
remember

remember you that are rich (seeing there are such great thieves in the world to rob you) not grudge to lend some proportion to breed them that have little, yet willing to learn how to defend you, for it is too late when the deed is doing.

The Romans estate hath been worse than this, for the mere covetousness and extortion of a few of them so moved the rest, that not having any employment but contemplation, their great judgments grew to so great malice, as themselves were sufficient to destroy themselves by faction; let this move you to embrace employment, for those whose educations, spirits, and judgments, want but your purses, not only to present such accustomed dangers, but also to gain more thereby than you have; and you fathers that are either so foolishly fond, or so miserably covetous, or so wilfully ignorant, or so negligently careless, as that you will rather maintain your children in idle wantonness till they grow your masters, or become so basely unkind that they wish nothing but your deaths, so that both sorts grow dissolute, and although you would wish them any where to escape the gallows and ease your cares, though they spend you here one, two, or three hundred pounds a year, you would grudge to give half so much in adventure with them to obtain an estate, which in a small time, but with a little assistance of your providence, might be better than your own; but if an angel should tell you any place yet unknown can afford such fortunes, you would not believe it, no more than Columbus was believed there was any such land as is now the well known abounding America, much less such large regions as are yet unknown, as well in America as in Africa and Asia, and Terra Incognita.

I have not been so ill bred but I have tasted of plenty and pleasure, as well as want and misery; nor doth necessity yet, or occasion of discontent, force me to these endeavours, nor am I ignorant what small thanks I shall have for my pains, or that many would have the world imagine them to be of great judgment, that can but blemish these my designs, by their witty objections and detraction, yet I hope my reasons with my deeds will so prevail with some, that I shall not want employment in these affairs, to make the most blind see his own senselessness and incredulity, hoping that gain will make them affect that which religion, charity, and the common good cannot. It were but a poor device in me to deceive myself, much more the King and state, my friends and country with these inducements, which seeing His Majesty hath given permission, I wish all sorts of worthy, honest, industrious spirits would understand, and if they desire any further satisfaction, I will do my best to give it, not to persuade them to go only, but go with them; not leave them there, but live with them there: I will not say but by ill providing and undue managing, such courses may be taken may make us miserable enough: but if I may have the execution of what I have projected, if they want to eat, let them eat or never digest me; if I perform what I say, I desire but that reward out of the gains may suit my pains, quality, and condition, and if I abuse you with my tongue, take my head for satisfaction. If any dislike at the year's end, defraying their charge, by my consent they should freely return; I fear not want of company sufficient, were it but known what I know of these countries, and by the proof of that wealth I hope yearly to return, if God please to bless me from such accidents as are beyond my power in reason to prevent; for I am not so simple to think that ever any other motive than wealth will ever erect there a commonwealth, or draw company from their ease and humours at home, to stay in New England to effect my purposes.

And lest any should think the toil might be insupportable, though these things may be had by labour and diligence, I assure myself there are who delight extremely in vain pleasure, that take much more pains in England to enjoy it, than I should do
here

here to gain wealth sufficient, and yet I think they should not have half such sweet content: for our pleasure here is still gain, in England charges and loss; here nature and liberty affords us that freely which in England we want, or it costeth us dearly. What pleasure can be more than being tired with any occasion ashore, in planting vines, fruits, or herbs, in contriving their own grounds to the pleasure of their own minds, their fields, gardens, orchards, buildings, ships, and other works, &c. to recreate themselves before their own doors, in their own boats, upon the sea, where man, woman, and child, with a small hook and line, by angling, may take divers sorts of excellent fish at their pleasure; and is it not pretty sport to pull up twopence, sixpence, and twelve-pence, as fast as you can hale and veer a line? He is a very bad fisher who cannot kill in one day, with his hook and line, one, two, or three hundred cod, which, dressed and dried, if they be sold there for ten shillings a hundred, though in England they will give more than twenty, may not both servant, master, and merchant be well content with this gain? If a man work but three days in seven, he may get more than he can spend, unless he will be exceedingly excessive. Now that carpenter, mason, gardener, tailor, smith, sailor, forger, or what other, may they not make this a pretty recreation, though they fish but an hour in a day, to take more than they can eat in a week, or if they will not eat it, because there is so much better choice, yet sell it or change it with the fishermen or merchants for any thing you want; and what sport doth yield a more pleasing content, and less hurt and charge than angling with a hook, and crossing the sweet air from isle to isle, over the silent streams of a calm sea, wherein the most curious may find profit, pleasure, and content.

Thus though all men be not fishers, yet all men whatsoever may in other matters do as well, for necessity doth in these cases so rule a commonwealth, and each in their several functions, as their labours in their qualities may be as profitable because there is a necessary mutual use of all.

For gentlemen, what exercise should more delight them than ranging daily these unknown parts, using fowling and fishing for hunting and hawking, and yet you shall see the wild hawks give you some pleasure in seeing them stop six or seven times after one another an hour or two together, at the skulls of fish in the fair harbours, as those ashore at a fowl, and never trouble nor torment yourselves with watching, mewing, feeding, and attending them, nor kill horse and man with running and crying, See you not a hawk; for hunting also, the woods, lakes and rivers afford not only chace sufficient for any that delight in that kind of toil or pleasure, but such beasts to hunt, that besides the delicacy of their bodies for food, their skins are so rich, as they will recompence the daily labour with a captain's pay.

For labourers, if those that sow hemp, rape, turnips, parsnips, carrots, cabbage, and such like, give twenty, thirty, forty, fifty shillings yearly for an acre of land, and meat, drink, and wages to use it, and yet grow rich: when better, or at least as good ground may be had and cost nothing but labour; it seems strange to me any such should grow poor.

My purpose is not to persuade children from their parents, men from their wives, nor servants from their masters; only such as with free consent may be spared: but that each parish, or village, in city or country, that will but apparel their fatherless children of thirteen or fourteen years of age, or young married people that have small wealth to live on here, by their labour may live exceeding well. Provided always, that first there be a sufficient power to command them, houses to receive them, means to defend them, and meet provisions for them, for any place may be over-lain: and it is most necessary to have a fortress (ere this grow to practice), and sufficient masters of all

all necessary, mechanical qualities to take ten or twelve of them for apprentices; the master by this may quickly grow rich, these may learn their trades themselves to do the like, to a general and an incredible benefit for king and country, master and servant.

It would be a history of a large volume to recite the adventures of the Spaniards and Portuguese, their affronts and defeats, their dangers and miseries, which with such incomparable honour and constant resolution, so far beyond belief, they have attempted and endured in their discoveries and plantations, as may well condemn us of too much imbecility, sloth, and negligence: yet the authors of these new inventions were held as ridiculous for a long time, as now are others that do but seek to imitate their unparalleled virtues; and though we see daily their mountains of wealth (sprung from the plants of their generous endeavours) yet is our sensuality and untowardness such and so great, that we either ignorantly believe nothing or so curiously contest to prevent we know not what future events, that we either so neglect, or oppress and discourage the present, as we spoil all in the making, crop all in the blooming; and building upon fair sand rather than upon rough rocks, judge that we know not, govern that we have not, fear that which is not; and for fear some should do too well, force such against their wills to be idle, or as ill. And who is he hath judgment, courage, and any industry or quality with understanding, will leave his country, his hopes at home, his certain estate, his friends, pleasures, liberty, and the preferment sweet England doth afford to all degrees, were it not to advance his fortunes by enjoying his deserts, whose prosperity once appearing, will encourage others: but it must be cherished as a child, till it be able to go and understand itself, and not corrected nor oppressed above its strength, ere it know wherefore. A child can neither perform the office nor deeds of a man of strength, nor endure that affliction he is able; nor can an apprentice at the first perform the part of a master, and if twenty years be required to make a child a man, seven years limited an apprentice for his trade: if scarce an age be sufficient to make a wise man a statesman, and commonly a man dies ere he hath learned to be discreet; if perfection be so hard to be obtained, as of necessity there must be practice as well as theorick: let no man then condemn this paradox opinion, to say that half seven years is scarce sufficient for a good capacity to learn in these affairs how to carry himself. And whoever shall try in these remote places the erecting of a colony, shall find at the end of seven years occasion enough to use all his discretion: and in the interim, all the content, rewards, gains, and hopes will be necessarily required to be given to the beginning, till it be able to creep, to stand, and go, and to encourage desert by all possible means; yet time enough to keep it from running, for there is no fear it will grow too fast, or ever to any thing, except liberty, profit, honour, and prosperity there found, more bind the planters of those affairs in devotion to effect it, than bondage, violence, tyranny, ingratitude, and such double dealing as binds free men to become slaves, and honest men turn knaves, which hath ever been the ruin of the most popular commonwealths, and it is very unlikely ever well to begin anew.

Who seeth not what is the greatest good of the Spaniards, but these new conclusions in searching those unknown parts of this unknown world; by which means he dives even into the very secrets of all his neighbours, and the most part of the world; and when the Portuguese and Spaniards had found the East and West Indies, how many did condemn themselves that did not accept of that honest offer of noble Columbus, who upon our neglect brought them to it, persuading ourselves the world had no such places as they had found: and yet ever since we find, they still (from time to time) have found new lands, new nations, and trades, and still daily do find, both in Asia, Africa, Terra Incognita,
and

and America, so that there is neither soldier nor mechanic, from the lord to the beggar, but those parts affords them all employment, and discharges their native soil of so many thousands of all sorts, that else by their sloth, pride, and imperfections, would long ere this have troubled their neighbours, or have eaten the pride of Spain itself.

Now he knows little that knows not England may well spare many more people than Spain, and is as well able to furnish them with all manner of necessaries: and seeing for all they have, they cease not still to search for that they have not, and know not; it is strange we should be so dull, as not maintain that which we have, and pursue that we know: surely, I am sure many would take it ill, to be abridged of the titles and honours of their predecessors; when if but truly they would judge themselves, look how inferior they are to their noble virtues, so much they are unworthy of their honours and livings, which never were ordained for shows and shadows, to maintain idleness and vice, but to make them more able to abound in honour, by heroical deeds of action, judgment, piety, and virtue. What was it both in their purse and person they would not do for the good of their common-wealth, which might move them presently to set out their spare children in these generous designs; religion above all things should move us, especially the clergy, if we are religious, to shew our faith by our works, in converting those poor savages to the knowledge of God, seeing what pains the Spaniards take to bring them to their adulterated faith. Honour might move the gentry, the valiant, and industrious, and the hope and assurance of wealth, all, if we were that we would seem, and be accounted; or be we so far inferior to other nations, or our spirits so far dejected from our ancient predecessors, or our minds so upon spoil, piracy, and such villainy, as to serve the Portugal, Spaniard, Dutch, French, or Turk, (as to the cost of Europe too many do) rather than our God, our king, our country, and ourselves; excusing our idleness and our base complaints by want of employment, when here is such choice of all sorts, and for all degrees, in the planting and discovering these North parts of American.

My second Voyage to New England.

IN the year of our Lord 1615, I was employed by many my friends of London, and Sir Ferdinando Gorges, a noble knight, and a great favourer of those actions, who persuaded the Reverend Dean of Exeter, Doctor Sutcliffe, and divers merchants of the West, to entertain this plantation. Much labour I had taken to bring the Londoners and them to join together, because the Londoners have most money, and the Western men are most proper for fishing, and it is near as much trouble, but much more danger, to sail from London to Plymouth, than from Plymouth to New England, so that half the voyage would thus be saved, yet by no means I could prevail, so desirous they were both to be lords of this fishing. Now to make my words more apparent by my deeds, to begin a plantation for a more ample trial of those conclusions, I was to have staid there but with sixteen men, whose names were;

Thomas Dirmer,
Edward Stallings,
Daniel Cage,
Francis Abbot,
John Gosling,
William Ingram,
David Cooper,
John Partridge,

} Gent.
}
} Soldiers.

Thomas Digby,
Daniel Baker,
Adam Smith,
Thomas Watson,
Walter Chiffel,
Robert Miller,
And two Boys,

} Were to learn
to be Sailors.

I confess I could have wished them as many thousands, had all other provisions been in like proportion; nor would I have had so few, could I have had means for more; yet would God have pleased we had safely arrived, I doubted not but to have performed more than I promised, and that many thousands ere this would have been there ere now. The main assistance, next God, I had to this small number, was my acquaintance amongst the savages, especially with Dohoday, one of their greatest lords, who had lived long in England, and another called Tantom, I carried with me from England, and set on shore at Cape Cod; by the means of this proud savage I did not doubt but quickly to have got that credit amongst the rest of the savages and their alliance, to have had as many of them as I desired in any design I intended, and that trade also they had by such a kind of exchange of their country commodities, which both with ease and security might then have been used with him and divers others: I had concluded to inhabit and defend them against the Tarentines, with a better power than the French did them, whose tyranny did enforce them to embrace my offer with no small devotion; and though many may think me more bold than wise, in regard of their power, dexterity, treachery, and inconstancy, having so desperately assaulted and betrayed many others; I say but this, (because with so many, I have many times done much more in Virginia than I intended here, when I wanted that experience Virginia taught me), that to me it seems no more danger than ordinary; and though I know myself the meanest of many thousands, whose apprehensive inspection can pierce beyond the bounds of my abilities, into the hidden things of nature, art, and reason; yet I entreat such, give me leave to excuse myself of so much imbecility, as to say, that in these eighteen years which I have been conversant with these affairs, I have not learned there is a great difference betwixt the directions and judgment of experimental knowledge, and the superficial conjecture of variable relation: wherein rumour, humour, or misprision have such power, that oftentimes one is enough to beguile twenty, but twenty not sufficient to keep one from being deceived. Therefore I know no reason but to believe my own eyes before any man's imagination, that is but wrested from the conceits of my own projects and endeavours, but I honor with all affection, the counsel and instructions of judicial directions, or any other honest advertisement, so far to observe, as they tie me, not to the cruelty of unknown events. These are the inducements that thus drew me to neglect all other employments, and spend my time and best abilities in these adventures, wherein though I have had many discouragements, by the ingratitude of some, the malicious slanders of others, the falseness of friends, the treachery of cowards, and slowness of adventurers.

Now you are to remember, as I returned first from New England at Plymouth, I was promised four good ships ready prepared to my hand the next Christmas, and what conditions and content I would desire, to put this business in practice, and arriving at London, four more were offered me with the like courtesy. But to join the Londoners and them in one, was most impossible; so that in January, with two hundred pounds in cash for adventure, and six gentlemen well furnished, I went from London to the four ships were promised me at Plymouth, but I found no such matter; and the most of those that had made such great promises, by the bad return of the ship went for gold, and their private emulations, were extinct and qualified. Notwithstanding, at last, with a labyrinth of trouble, though the greatest of the burden lay on me, and a few of my particular friends, I was furnished with a ship of two hundred tons, and another of fifty; but ere I had sailed one hundred and twenty leagues, she broke all her masts, pumping each watch five or six thousand strokes; only her sprit-sail remained to spoon before the wind, till we had re-accommodated a jury-mast to return for Plymouth, or foundered in the seas.

My

My vice-admiral being lost, not knowing of this, proceeded her voyage; now with the remainder of those provisions, I got out again in a small bark of sixty tons with thirty men: for this of two hundred, and provision for seventy, which were the sixteen before named, and fourteen other sailors for the ship; with those I set sail again the four-and-twentieth of June, where what befell me (because my actions and writings are so public to the world) envy still seeking to scandalize my endeavours, and seeing no power but death can stop the chat of ill tongues, nor imaginations of men's minds, lest my own relations of those hard events might by some constructors be made doubtful, I have thought it best to insert the examinations of those proceedings, taken by Sir Lewis Stukeley, a worthy knight, and vice-admiral of Devonshire, which was as followeth:

The Examination of Daniel Baker, late Steward to Captain John Smith, in the return of Plymouth, taken before Sir Lewis Stukely, Knight, the 8th of December, 1615.

THE effect in brief was this: being chased by one Fry an English pirate, Edward Chambers the master, John Minter his mate, Thomas Digby the pilot, and divers others importuned him to yield; much swaggering we had with them, more than the pirates, who agreed upon such fair conditions as we desired, which if they broke, he vowed to sink rather than be abused. Strange they thought it, that a bark of three-score tons with four guns should stand upon such terms, they being eighty expert seamen, in an excellent ship of one hundred and forty tons, and thirty-six cast pieces and murderers. But when they knew our captain, so many of them had been his soldiers, and they but lately run from Tunis, where they had stolen this ship, wanted victuals, and in combustion amongst themselves, would have yielded all to his protection, or waisted us any whither; but those mutinies occasioned us to reject their offer, which afterwards we all repented; for at Fuiall we met two French pirates, the one of two hundred tons, the other thirty: no disgrace would cause our mutineers fight, till the captain offered to blow up the ship rather than yield, till he had spent all his powder: so that together by the ears we went, and at last got clear of them for all their shot. At Flowers we were again chased with four French men of war, the admiral one hundred and forty tons, and ninety men well armed; the rest good ships, and as well provided: much parly we had, but vowing they were Rochelers, and had a commission from the King only to secure true men, and take Portuguese, Spaniards, and pirates, and as they requested, our captain went to shew his commission, which was under the broad seal, but neither it nor their vows they so much respected, but they kept him, rifled our ship, manned her with Frenchmen, and dispersed us amongst their fleet within five or six days they were increased to eight or nine sail. At last they surrendered us our ship, and most of our provisions, the defects they promised the next day to supply, and did. Notwithstanding, there was no way but our mutineers would for England, though we were as near New England, till the major part resolved with our captain to proceed. But the admiral sending his boat for our captain, they espying a sail, presently gave chase, whereby our mutineers finding an opportunity in the night ran away, and thus left our captain in his cap, breeches, and waistcoat, alone among the Frenchmen: his clothes, arms, and what he had, our mutineers shared among them, and with a false excuse, feigning for fear lest he should turn man of war, they returned for Plymouth: fifteen of us being landmen, not knowing what they did. Daniel Cage, Edward Stalings, Walter Chisel, David Cooper, Robert Miller, and John Partridge, upon oath affirms this for truth before the vice-admiral.

Now the cause why the French detained me again, was the suspicion this Chambers and Minter gave them, that I would revenge myself upon the Bank, or in Newfoundland, of all the French I could there encounter, and how I would have fired the ship, had they not over-persuaded me ; and that if I had but again my arms, I would rather sink by them, than they should have from me but the value of a biscuit ; and many other such like tales to catch but opportunity in this manner to leave me, and thus they returned to Plymouth, and perforce with the Frenchmen I thus proceeded. Being a fleet of eight or nine sail, we watched for the West India fleet, till ill weather separated us from the other eight : still we spent our time about the isles of the Azores, where to keep my perplexed thoughts from too much meditation of my miserable estate, I writ this discourse, thinking to have sent it to you of His Majesty's council by some ship or other, for I saw their purpose was to take all they could. At last we were chased by one Captain Barra, an English pirate in a small ship, with some twelve pieces of ordnance, about thirty men, and near all starved. They sought by courtesy relief of us, who gave them such fair promises, as at last they betrayed Captain Wollistone, his Lieutenant, and four or five of his men aboard us, and then provided to take the rest perforce. Now my part was to be prisoner in the gun-room, and not to speak to any of them upon my life ; yet had Barra knowledge what I was. Then Barra perceiving well those French intents, made ready to fight, and Wollistone as resolutely regarded not their threats, which caused us demur upon the matter longer some sixteen hours, and then returned them again Captain Wollistone and all their prisoners, and some victuals also upon a small composition ; but whilst we were bartering thus with them, a carvill before our faces got under the castle of Gratiofa, from whence they beat us with their ordnance.

The next we took was a small Englishman of Poole from Newfoundland : the great cabin at this present was my prison, from whence I could see them pillage these poor men of all that they had, and half their fish : when he was gone, they sold his poor clothes at the main-mast by an outcry, which scarce gave each man seven pence a piece.

Not long after we took a Scot freighted from Saint Michael's to Bristow, he had better fortune than the other ; for having but taken a boat's loading of sugar, marmelade, suckets, and such like, we descried four sail, after whom we stood, who furling their main-sails attended us to fight, but our French spirits were content only to perceive they were English red crosses. Within a very small time after we chased four Spanish ships that came from the Indies ; we fought with them four or five hours, tore their sails and sides with many a shot betwixt wind and weather, yet not daring to board them, lost them, for which all the sailors ever after hated the captain as a professed coward.

A poor carvill of Brazil was the next we chased ; and after a small fight, thirteen or fourteen of her men being wounded, which was the better half, we took her with three hundred and seventy chests of sugar, one hundred hides, and thirty thousand rials of eight.

The next was a ship of Holland, which had lost her consorts in the Straights of Magellan, going for the South Sea : she was put roomy, she also these Frenchmen with fair promises cunningly betrayed to come aboard them to shew their commission, and so made prize of all : the most of the Dutchmen we took aboard the admiral, and manned her with Frenchmen, that within two or three nights after ran away with her for France ; the wounded Spaniards we set on shore on the isle of Tercera, the rest we kept to sail the carvel.

Within

Within a day or two after, we met a West India man of war, of one hundred and sixty tons, a forenoon we fought with her, and then took her with one thousand one hundred hides, fifty chests of cochineal, fourteen coffers of wedges of silver, eight thousand rials of eight, and six coffers of the King of Spain's treasure, besides the good pillage and rich coffers of many rich passengers.

Two months they kept me in this manner to manage their fights against the Spaniards, and be a prisoner when they took any English. Now, though the captain had oft broke his promise, which was to put me on shore the isles, or the next ship he took; yet at the last he was contented I should go in the carvel of sugar for France, himself seeming as resolved to keep the seas; but the next morning we all set sail for France, and that night we were separated from the admiral and the rich prize by a storm. Within two days after we were hailed by two West India men; but when they saw us waive them for the King of France, they gave us their broadsides, shot through our main mast, and so left us. Having lived now this summer amongst those French men of war, with much ado we arrived at the Gulion, not far from Rochelle: where, instead of the great promises they always fed me with, of double satisfaction and full content, and ten thousand crowns was generally concluded I should have, they kept me five or six days prisoner in the carvel, accusing me to be he that burnt their colony in New France; to force me to give them a discharge before the judge of the admiralty, and stand to their courtesies for satisfaction, or lie in prison, or a worse mischief: indeed this was in the time of combustion, that the Prince of Condé was with his army in the field, and every poor lord, or men in authority, as little kings of themselves: for this injury was done me by them that set out this voyage, (not by the sailors) for they were cheated of all as well as I, by a few officers aboard, and the owners on shore.

But to prevent this choice, in the end of such a storm that beat them all under hatches, I watched my opportunity to get ashore in their boat, whereunto, in the dark night, I secretly got, and with a half-pike that lay by me put adrift for Rat Isle; but the current was so strong, and the sea so great, I went adrift to sea, till it pleased God the wind so turned with the tide, that although I was all this fearful night of gusts and rain in the sea, the space of twelve hours, when many ships were driven ashore, and divers split (and being with sculling and baling the water tired, I expected each minute would sink me): at last I arrived in any oozy isle by Charowne, where certain fowlers found me near drowned and half-dead with water, cold, and hunger. My boat I pawned to find means to get to Rochelle, where I understood our man of war and the rich prize, wherein was the capture called Monsieur Poyrune, and the thirty thousand rials of eight we took in the carvel, was split, the captain drowned and half his company the same night, within six or seven leagues of that place, from whence I escaped in the little boat, by the mercy of God, far beyond all men's reason or my expectation arriving at Rochelle. Upon my complaint to the judge of the admiralty, I found many good words and fair promises, and ere long many of them that escaped drowning told me the news they heard of my own death. These I arresting, their several examinations did so confirm my complaint, it was held proof sufficient. All which being performed according to their order of justice, from under the judge's hand, I presented it to Sir Thomas Edmonds, then ambassador at Bourdeaux, where it was my chance to see the arrival of the King's great marriage brought from Spain.

Here it was my good fortune to meet my old friend Mr. Crampton, that no less grieved at my loss, than willingly to his power did supply my wants; and I must confess, I was more beholden to the Frenchmen that escaped drowning in the man of war, Madam Chanoyes at Rochelle, and the lawyers of Bourdeaux, than all the rest of
my

my countrymen I met in France. Of the wreck of the rich prize, some three thousand six hundred crowns worth of goods came ashore, and was saved with the carvel, which I did my best to arrest: the judge promised I should have justice; what will be the conclusion as yet I know not. But under the colour to take pirates and the West Indiamen (because the Spaniards will not suffer the French to trade in the West Indies), any goods from thence, though they take them upon the coast of Spain, are lawful prize, or from any of his territories out of the limits of Europe; and as they betrayed me, though I had the broad seal, so did they rob and pillage twenty sail of Englishmen more, besides them I know not of the same year.

Leaving thus my business in France, I returned to Plymouth, to find them who had thus buried me amongst the French; and not only buried me, but with so much infamy as such treacherous cowards could suggest to excuse their villanies. The chieftains of this mutiny that I could find, I laid by the heels, the rest like themselves confessed the truth, as you have heard. Now how I have or could prevent these accidents, having no more means, I rest at your censures; but to proceed to the matter, yet must I sigh and say, how oft hath fortune in the world (think I) brought slavery, freedom, and turned all diversely. Newfoundland, I have heard at the first, was held as desperate a fishing as this I project for New England, Placentia, and the banks near also, as doubtful to the French; but for all the disasters happened me, the business is the same it was, and the five ships went from London, whereof one was reported more than three hundred tons, found fish so much, that neither Iceland-man nor Newfoundland-man I could hear of hath been there, will go any more to either place, if they may go thither. So that upon the good return of my vice-admiral, this year are gone four or five sail from Plymouth, and from London as many, only to make voyages of profit; whereas if all the English had been there till my return, put all their returns together, they would scarce make one a favour of near a dozen I could nominate, except one sent by Sir Francis Popham; though there be fish sufficient, as I am persuaded, to freight yearly four or five hundred sail, or as many as will go. For this fishing stretcheth along the sea-coast from Cape James to Newfoundland, which is seven or eight hundred miles at the least, and hath his course in the deeps, and by the shore, all the year long, keeping their haunts and feedings as the beasts of the air. But all men are not such as they should be, that have undertaken those voyages. All the Romans were not Scipios, nor Carthaginians, Hannibals; nor all the Genoese, Columbuses, nor all the Spaniards, Courteses: had they dived no deeper in the secrets of their discoveries than we, or stopped at such doubts and poor accidental chances, they had never been remembered as they are, yet had they no such certainties to begin as we.

But to conclude: Adam and Eve did first begin this innocent work to plant the earth to remain to posterity, but not without labour, trouble, and industry. Noah and his family began again the second plantation, and their seed, as it still increased, hath still planted new countries, and one country another, and so the world to that estate it is; but not without much hazard, travail, mortalities, discontents, and many disasters. Had those worthy fathers, and their memorable offspring, not been more diligent for us now in these ages, than we are to plant that yet is unplanted for the after-livers: had the seed of Abraham, our Saviour Christ and his apostles, exposed themselves to no more dangers to teach the gospel than we, even we ourselves had at this present time been as savage and as miserable as the most barbarous savage yet uncivilized. The Hebrews and Lacedemonians, the Goths, the Grecians, the Romans, and the rest, what was it they would not undertake to enlarge their territories, enrich their subjects,

subjects, resist their enemies? Those that were the founders of those great monarchies and their virtues, were no silvered idle golden pharisees, but industrious iron-steeled publicans. They regarded more provisions and necessaries for their people, than jewels, riches, ease, or delight for themselves; riches were their servants, not their masters. They ruled (as fathers, not as tyrants) their people as children, not as slaves; there was no disaster could discourage them; and let none think they incurred not with all manner of incumbrances. And what hath ever been the work of the greatest princes of the earth but planting of countries, and civilizing barbarous and inhuman nations to civility and humanity, whose eternal actions fill our histories.

Lastly, the Portugueze and Spaniards, whose ever-living actions before our eyes will testify with them our idleness and ingratitude to all posterities, and the neglect of our duties in our piety and religion. We owe our God, our King, and country, and want of charity to those poor savages, whose country we challenge, use, and possess; except we be but made to use, and mar what our forefathers made, or but only tell what they did, or esteem ourselves too good to take the like pains. Was it virtue in them to provide that maintain us, and baseness in us to do the like for others? Surely, no. Then seeing we are not born for ourselves, but each to help other, and our abilities are much alike at the hour of our birth, and the minute of our death: seeing our good deeds or our bad by faith in Christ's merits, is all we have to carry our souls to heaven or hell. Seeing honour is our life's ambition, and our ambition after death to have an honourable memory of our life; and seeing by no means we would be abated of the dignity and glories of our predecessors, let us imitate their virtues to be worthily their successors. To conclude with Lucretius,

Its want of reason, or its reason's want
Which doubts the mind and judgment, so doth daunt
That those beginnings makes men not to grant.

JOHN SMITH writ this with his own hand.

Here followeth a brief Discourse of the Trials of New England, with certain Observations of the Hollanders' Use and Gain by fishing, and the present State of that happy Plantation, begun by sixty weak Men, in the Year of our Lord 1620; and how to build a Fleet of good Ships to make a little Navy Royal, by the former Author.

HE saith that it is more than four-and-forty years ago, and it is more than forty years ago since he writ it, that the herring buffes out of the Low Countries, under the King of Spain, were five hundred, besides one hundred Frenchmen, and three or four hundred sail of Flemings. The coast of Wales and Lancashire was used by three hundred sail of strangers. Ireland at Baltamore freighted yearly three hundred sail of Spaniards, where King Edward the Sixth intended to have made a strong castle, because of the straight to have tribute for fishing. Black Rock was yearly fished by three or four hundred sail of Spaniards, Portuguese, and Biskaners.

The Hollanders raise yearly by herring, cod, and ling, thirty thousand pounds: English and French, by salt-fish, poor-john, salmons, and pilchards, three hundred thousand pounds: Hamburgh and the Sound, for sturgeon, lobsters, and eels, one hundred thousand pounds: Cape Blank, for tunny and mullet, by the Biskaners and Spaniards, thirty thousand pounds.

That the Duke of Medina receiveth yearly tribute of the fishers, for tunny, mullet, and porgos, more than ten thousand pounds. Lubeck hath seven hundred ships.
Hamburgh

Hamburgh fix hundred. Embden, lately a fishing town, one thousand four hundred, whose customs by fishing hath made them so powerful as they be. Holland and Zealand, not much greater than Yorkshire, hath thirty walled towns, four hundred villages, and twenty thousand sail of ships and hoys; three thousand six hundred are fishermen, whereof one hundred are doggers, seven hundred pinks and well-boats, seven hundred fraud-boats, britters, and tode-boats, with thirteen hundred buffes, besides three hundred that yearly fish about Yarmouth, where the sell their fish for gold: and fifteen years ago they had more than an hundred and sixteen thousand seafaring men.

These fishing-ships do take yearly two hundred thousand lasts of fish, twelve barrels to a last, which amounts to three hundred thousand pounds by the fishermen's price, that fourteen years ago did pay for their tenths three hundred thousand pounds, which venting in Pumerland, Sprustia, Denmark, Lefeland, Russia, Swethland, Germany, Netherlands, England, or elsewhere, &c. makes their returns in a year about three-score and ten hundred thousand pounds, which is seven millions; and yet in Holland there is neither matter to build ships, nor merchandize to set them forth, yet by their industry they as much increase as other nations decay; but leaving these uncertainties as they are, of this I am certain:

That the coast of England, Scotland, and Ireland, the North Sea, with Island and the Sound, Newfoundland and Cape Blank, do serve all Europe, as well the land towns as ports, and all the Christian shipping, with these sorts of staple fish, which is transported from whence it is taken many thousand miles, viz. herring, salt-fish, poor-john, sturgeon, mullet, tunny, porgos, caviare, buttargo.

Now seeing all these sorts of fish, or the most part of them, may be had in a land more fertile, temperate, and plentiful of all necessities, for the building of ships, boats, and houses, and the nourishment of man, the seasons are so proper, and the fishings so near the habitations we may there make, that New England hath much advantage of the most of those parts, to serve all Europe far cheaper than they can, who at home have neither wood, salt, nor food, but at great rates; at sea nothing but what they carry in their ships an hundred or two hundred leagues from the habitation. But New England's fishings is near land, where is help of wood, water, fruits, fowls, corn, or other refreshings needful, and the Terceras, Madeiras, Canaries, Spain, Portugal, Provaves, Savoy, Sicily, and all Italy, as convenient markets for our dry fish, green fish, sturgeon, mullet, caviare, and buttargo, as Norway, Swethland, Lithuania, or Germany, for their herring, which is here also in abundance for taking; they returning but wood, pitch, tar, soap-ashes, cordage, flax, wax, and such like commodities; we wines, oils, sugars, silks, and such merchandizes as the Straits afford, whereby our profit may equalize theirs, besides the increase of shipping and mariners; and for proof hereof,

In the year of our Lord 1614, you have read how I went from London; also the next year 1615, how four good ships went to London, and I with two more from Plymouth, with all our accidents, successes, and returns: in the year 1616, ere I returned from France, the Londoners, for all their loss by the Turks, sent four ships more; four more also went from Plymouth; after I returned from France, I was persuaded again to go to Plymouth with divers of my friends, with one hundred pounds for our adventures, besides our charges, but we found all things as untoward as before, and all their great promises nothing but air: yet to prepare the voyage against the next year, having acquainted a great part of the nobility with it, and ashamed to see the Prince His Highness, till I had done somewhat worthy his princely view, I spent that summer in visiting the cities and towns of Bristol, Exeter, Barnstaple, Bodmin,

Perin, Foy, Milborow, Saltash, Dartmouth, Absom, Totness, and the most of the gentry in Cornwall and Devonshire, giving them books and maps, shewing how in six months the most of those ships had made their voyages, and some in less, and with what good success; by which incitation they seemed so well contented, as they promised twenty sail of ships should go with me next year, and in regard of my pains, charge, and former losses, the western commissioners, in behalf of themselves and the rest of the company, and them hereafter that shall be joined to them, contracted with me by articles indented under our hands, to be admiral of that country during my life, and in the renewing of their letters patent so to be nominated. Half the fruits of our endeavours to be theirs, the rest our own; being thus engaged, now the business is made plain and likely to prosper, some of them would not only forget me and their promises, but also obscure me, as if I had never been acquainted in the business, but I am not the first they have deceived.

There were four good ships prepared at Plymouth, but by reason of their disagreement, the season so wasted, as only two went forward, the one being of two hundred tons, returned well freighted to Plymouth, and her men in health, within five months: the other of fourscore tons went for Bilbow with dry fish, and made a good return. In this voyage Edward Rowcroft alias Stallings, a valiant soldier, that had been with me in Virginia, and was with me also when I was betrayed by the French, was sent again in those ships, and having some wrong offered him there by a Frenchman, he took him, and as he writ to me, went with him to Virginia with fish, to trade with them for such commodities as they might spare: he had not past ten or twelve men, and knew both those countries well; yet he promised me the next spring to meet me in New England, but the ship and he both perished in Virginia.

This year again divers ships intending to go from Plymouth, so disagreed, there went but one of two hundred tons, who staid in the country about six weeks, which with eight-and-thirty men and boys had her freight, which she sold at the first penny for two thousand one hundred, besides the furs, so that every poor sailor that had but a single share had his charges and sixteen pounds ten shillings for his seven months' work. Mr. Thomas Dirmire, an understanding and industrious gentleman, that was also with me amongst the Frenchmen, having lived about a year in Newfoundland, returning to Plymouth, went for New England in this ship, so much approved of this country, that he staid there with five or six men in a little boat; finding two or three Frenchmen amongst the savages who had lost their ship, augmented his company, with whom he ranged the coast to Virginia, where having been a year, in his back return to Virginia, he was so wounded by the savages, he died upon it. Let not men attribute these their great adventures and untimely deaths to unfortunateness, but rather wonder how God did so long preserve them with so small means to do so much, leaving the fruits of their labours to be an encouragement to those our poor undertakings, and as warnings for us not to undertake such great works with such small means, and this for advantage as they writ unto me, that God had laid this country open for us, and slain the most part of the inhabitants by civil wars and a mortal disease; for where I had seen one hundred or two hundred savages, there is scarce ten to be found, and yet not any one of them touched with any sickness but one poor Frenchman that died:

They say this plague upon them thus fore fell,
It was because they pleased not Tantum well.

From the West-country, to make trial this year only to fish, are gone six or seven sail, three of which I am certainly informed made so good a voyage, that every sailor

that had a single share had twenty pounds for his seven months' work, which is more than in twenty months he should have gotten, had he gone for wages any where. Now although these former ships have not made such good voyages as they expected, by sending opinionated unskilful men, that had not experienced diligence to save that they took, nor take that there was, which now patience and practice hath brought to a reasonable kind of perfection; in despite of all detractors and calumniation the country yet hath satisfied all, the defect hath been in their using and abusing it, not in itself nor me: but,

A due desert, for fortune makes provision
For knaves and fools, and men of base condition.

Now all these proofs and this relation I now called New England's trial. I caused two or three thousand of them to be printed; one thousand, with a great many maps both of Virginia and New England, I presented to thirty of the chief companies in London at their halls, desiring either generally or particularly (them that would) to embrace it, and by the use of a stock of five thousand pounds, to ease them of the superfluity of the most of their companies that had but strength and health to labour; near a year I spent to understand their resolutions, which was to me a greater toil and torment than to have been in New England about my business, but with bread and water, and what I could get there by my labour; but, in conclusion, seeing nothing would be effected, I was contented as well with this loss of time and charge as all the rest.

A Plantation in New England.

UPON these inducements some few well-disposed gentlemen and merchants of London and other places, provided two ships, the one of a hundred and threescore tons, the other of threescore and ten. They left the coast of England the 22d of August, with about a hundred and twenty persons; but the next day the lesser ship sprung a leak, that forced their return to Plymouth, where discharging her and twenty passengers, with the greater ship and one hundred passengers, besides sailors, they set sail again the 6th of September; and the 9th of November fell with Cape James; but being pestered nine weeks in this leaking unwholesome ship, lying wet in their cabins, most of them grew very weak and weary of the sea; then, for want of experience, ranging two and again six weeks before they found a place they liked to dwell on, forced to lie on the bare ground without coverture, forty of them died, and threescore were left in very weak state at the ship's coming away about the 5th of April following, and arrived in England the 6th of May. Though the harbour be good, the shore is so shallow, they were forced to wade a great way up to the knees in water, and used that that did them much hurt; and little fish they found but whales, and a great kind of muscle, so fat that few did eat of them that were not sick. These miseries occasioned some discord, and gave some appearance of faction; but all was so reconciled, that they united themselves by common consent under their hands, to a kind of combination of a body politic, by virtue whereof to enact and constitute laws and ordinances, and officers from time to time, as should be thought most convenient for their general good.

Sixteen or seventeen days they could do little for want of their shallop, which was mending, yet Captain Miles Standish, unto whom was joined in council William Bradfor, Stephen Hopkins, and Edward Tilly, went well armed ashore, and by that
time

time they had gone a mile, met five or six Indians, that fled into the woods. We traced them by the footing eight or ten miles; then the night approaching, we made a fire, by which we lay that night, and the next morning followed the savages by their track, thinking to find their habitations, but by the way we found a deer amongst many fair springs of water, where we refreshed ourselves; then we went ashore and made a fire, that they at the ship might perceive where we were, and so marched to a place where we supposed was a river; by the way we saw many vines, sassafras, haunts of deer, and fowl, and some fifty acres of plain ground had been planted by the Indians, where were some of their graves; from thence we followed a path that brought us through three or four fields that had been planted that year; in one grave we digged we found a basket or two of Indian corn; so much as we could carry we took with us, the rest we buried as we found it, and so proceeded to the place we intended, but we found it not such a harbour as we expected; and so we returned, till the night caused us to take up our lodging under a tree, where it rained six or seven hours. The next morning as we wandered, we passed by a tree, where a young sprig was bowed down over a bough, and some acorns strewed under it, which was one of their gins to catch a deer, and as we were looking at it, Bradford was suddenly caught by the leg in a noosed rope, made as artificially as ours; as we passed, we saw a leash of bucks, sprung some partridges, and great flocks of wild geese and ducks, and so we returned well wearied to our ship.

Mr. Jones, our master, with four-and-thirty men, also went up and down in the frost and snow, two or three days in the extremity of the cold, but could find no harbour; only among the old graves we got some ten bushels of corn, some beans, and a bottle of oil; and had we not thus happily found it, we had had no corn for seed, so that place we ever called Corn-Hill. The next day Mr. Jones, with the corn and our weakest men, returned to the ship; but eighteen of us quartered there that night, and in the morning following the paths, we found in the snow, in a field, a greater hill, or grave, than the rest; digging it, we found first a mat, under that a board three quarters long, painted and carved, with three tins at the top like a coronet; between the mats also were bowls, trays, and dishes, and such trash; at length we found a fair new mat, and under that two bundles, the one bigger, the other less; in the greater we found a great quantity of fine red powder, like a kind of embalmment, and yielded a strong but no offensive smell, with the bones and skull of a man that had fine yellow hair still on it, and some of the flesh unconsumed, a knife, a pack-needle, and two or three old iron things were bound up in a sailor's canvas cassock, also a pair of cloth breeches; in the less bundle we found likewise of the same powder, and the bones and head of a little child; about the legs and other parts of it were bound strings and bracelets of white beads; there was also a little bow, and some other odd knacks; the prettiest we took, and covered again the corps as they were. Not far from thence were two of their houses, where were a great deal of their miserable household stuff, which we left as we found, and so returned to our boat, and lay aboard that night.

Many arguments we had to make here our plantation or not; in the interim, Mrs. White was brought to bed of a young son, which was called Perigrine: and a sailor shooting at a whale, his piece flew in pieces stock and all, yet he had no hurt. A foolish boy discharging his father's piece hard by half a barrel of powder, and many people by it, it pleased God it escaped firing, so that no hurt was done.

But to make a more certain discovery where to seat ourselves, Captain Standish, Mr. Carver, William Branford, Edward Winsloe, John Tilly, Edward Tilly, with divers

others to the number of seventeen, upon the 6th of December set sail; and having sailed six or seven leagues, we espied eight or ten savages about a dead grampus: still following the shore we found two or three more cast up by the ill weather, many we see in the water, therefore we called it Grampus Bay. Ships may ride well in it, but all the shore is very shallow flats of sand: at last seven or eight of us went ashore, many fields we saw where the savages had inhabited, and a burial place encompassed with a palizado, so we returned to our shallop; in the night we heard a hideous cry and howling of wolves and foxes: in the morning as we were ready to go into our shallop, one of our men being in the woods, came running crying, Indians, Indians; and with all their arrows flying amongst us, some of our men being in the boat, and their arms ashore, so well it chanced, Captain Standish with two or three more discharged their pieces till the rest were ready; one savage more stout than the rest kept under a tree, till he had shot three or four arrows, and endured three or four musket shot; but at last they all fled: this was about break of day in the morning when they saw us, and we not them.

Having the wind fair, we sailed along the coast eight or ten leagues, thinking to have got to a harbour where one of our company had been, within eight leagues of Cape Cod, for neither creek nor harbour in this bay we could find; and the wind so increased, our rudder broke, and our mast flew overboard, that we were in danger to be cast away; but at last it pleased God we were in an harbour we knew not, thinking it one we were acquainted with; this we found to be an isle where we rode that night, and having well viewed the land about it, and sounded the bay to be a good harbour for our ship, compassed with good land, and in it two fair isles, where there is in their seasons innumerable store of all sorts of fish and fowl, good water, much plain land, which hath been planted; with this news we returned to our ship, and with the next fair wind brought her thither, being but within the sight of Cape Cod; in the meantime Goodwife Alderton was delivered of a son, but dead born. Upon the 28th of December, so many as could went to work upon the hill, where we purposed to build our platform for our ordnance, which doth command all the plain and the bay, and from whence we may see far into the sea, and be easily impaled; so in the afternoon we went to measure out the grounds, and divided our company into nineteen families, allotting to every person half a pole in breadth and three in length, and so we cast lots where every man should lie, which we staked out, thinking this proportion enough at the first to impale for lodgings and gardens.

Francis Billington, from the top of a tree, seeing a great water some three miles from us in the land, went with the master's mate, and found it two great lakes of fresh water, the bigger five or six miles in circuit, and an isle in it of a cable's length square; the other three miles in compass, full of fish and fowl, and two brooks issuing from it, which will be an excellent help in time for us, where they saw seven or eight Indian houses, but no people. Four being sent a mile or two from our plantation, two of them straggling into the woods was lost, for coming to a lake of water they found a great deer; having a mastiff bitch and a spaniel with them, they followed so far they could not find the way back; that afternoon it rained, and did freeze and snow at night: their apparel was very thin, and had no weapons but two sickles, nor any victuals, nor could they find any of the savages habitations; when the night came they were much perplexed that they had no other bed than the earth, nor coverture than the skies, but that they heard, as they thought, two lions roaring a long time together very nigh them, so not knowing what to do, they resolved to climb up into a tree, though that would be an intolerable cold lodging, expecting their coming they stood at the tree

root, and the bitch they held fast by the neck, for she would have been gone to the lions or what they were, that as it chanced came not nigh them, so they watched the tree that extreme cold night, and in the morning travelling again, passing by many lakes, brooks and woods, and in one place where the savages had burnt four or five miles in length, which is a fine champaign country, in the afternoon they discovered the two isles in their bay, and so that night near famished they got to their plantation, from whence they had sent out men every way to seek them; that night the house they had built and thatched, where lay their arms, bedding, powder, &c. took fire and was burnt. The coast is so shoal the ship rides more than a mile from the fort, but God be thanked no man was hurt though much was burnt.

All this time we could not have conference with a savage, though we had many times seen them and had many alarms, so that we drew a council, and appointed Captain Standish to have the command of all martial actions, but even in the time of consultation the savages gave an alarm: the next day also as we were agreeing upon his orders, came a tall savage boldly amongst us, not fearing any thing, and kindly bid us welcome in English; he was a Sagamo, towards the north, where the ships use to fish, and did know the names of most of the masters that used thither: such victuals as we had we gave him, being the first savage we yet could speak with, he told us this place where we were was called Patuxet, and that all the people three or four years ago there died on the plague: in a day or two we could not be rid of him, then he returned to the Massafoyts from whence he came, where is some sixty people, but the Nawfuts are one hundred strong, which were they encountered our people at the first. Two days after this Samoset, for so was his name, came again, and brought five or six of the Massafoyts with him, with certain skins, and certain tools they had got that we had left in the woods at their alarms: much friendship they promised, and so departed, but Samoset would not leave us, but feigned himself sick, yet at last he went to entreat the savages come again to confirm a peace: now the third time, as we were consulting of our martial orders, two savages appeared, but when we went to them they vanished: not long after came Samoset and Squanto, a native of Patuxet, where we dwell, and one of them carried into Spain by Hunt, thence brought into England, where a good time he lived; and now here signified unto us, their great Sachem of Massafoyt, with Quadaquina his brother, and all their men, was there by to see us: not willing to send our governor, we sent Edward Wollislo with presents to them both, to know their minds, making him to understand by his interpreters, how King James did salute him, and was his friend; after a little conference with twenty of his men, he came over the brook to our plantation, where we set him upon a rug, and then brought our governor to him with drums and trumpets; where after some circumstances, for they use few compliments, we treated of peace with them to this effect.

That neither he nor any of his should injure or do hurt to any of us; if they did, he should send us the offender, that we might punish him, and we would do the like to him: if any did unjustly war against him, we would aid him, as he should us against our enemies, and to send to his neighbour confederates to certify them of this, that they might likewise be comprised in these conditions, that when any of them came to us, they should leave their bow and arrows behind them, as we would our pieces when we came to them, all which the King seemed to like well of, and was applauded of his followers. In his person he is a very lusty man, in his best years, an able body, grave of countenance, and spare of speech; in his attire little differing from the rest: after all was done, the governor conducted him to the brook, but kept our hostage till

till our messengers returned : in like manner we used Quaddaquina ; so all departed good friends.

Two of his people would have staid with us, but we would not permit them, only Samoset and Squanto we entertained kindly ; as yet we have found they intend to keep promise, for they have not hurt our men they have found straggling in the woods, and are afraid of their powerful adversaries the Narrohiggansets, against whom he hopes to make use of our help. The next day Squanto went a fishing for eels, and in an hour he did tread as many out of the ooze with his feet as he could lift with his hand, not having any other instrument.

But that we might know their habitations so well as they ours, Stephen Hopkins and Edward Winslow had Squantum for their guide and interpreter ; to Packanoki, the habitation of the King of Massasoyt, with a red horseman's coat for a present, to entreat him by reason we had not victuals to entertain them as we would, he would defend his people so much from visiting us ; and if he did send, he should always send with the messenger a copper chain they gave him, that they might know he came from him, and also give them some of his corn for seed : that night they lodged at Namascet, some fifteen miles off ; by the way we found ten or twelve women and children that still would pester us till we were weary of them, perceiving it is the matter of them, where victuals is to be gotten with most ease, there they will live ; but on that river of Namaschot have been many habitations of the savages that are dead, and the land lies waste, and the river abounding with great plenty of fish, and hath been much frequented by the French.

The next day travelling with six or seven Indians, where we were to wade over the river, did dwell only two old men of that nation then living, that thinking us enemies, sought the best advantage they could to fight with us, with a wonderful shew of courage ; but when they knew us their friends they kindly welcomed us. After we came to a town of the Massasoyts ; but at Pakanoki the King was not : towards night he arrived, and was very proud both of our message and presents, making a great oration to all his people, Was not he Massasoyt, commander of the country about him, was not such a town his, and the people of it, and twenty towns more he named was his ? and should they not bring their skins to us ? To which they answered, they were his and they would, victuals they had none, nor any lodging, but a poor plank or two, a foot high from the ground, whereon his wife and he lay at the one end, we at the other, but a thin mat upon them, two more of his chief men pressed by and upon us, so that we were worse weary of our lodging than of our journey. Although there is such plenty of fish and fowl and wild beasts, yet are they so lazy they will not take pains to catch it till mere hunger constrain them, for in two or three days we had scarce a meal's meat, whereby we were so faint, we were glad to be at home ; besides what for the fleas, and their howling and singing in the night in their houses, and the musquitoes without doors, our heads were as light for want of sleep, as our bellies empty for want of meat. The next voyage we made was in a shallop with ten men to Nawfit, sixteen miles from us, to fetch a boy was lost in the woods we heard was there, whom Aspinet their King, had bedecked like a savage, but very kindly he brought him to us, and so returned well to Patuyet.

Immediately after the arrival of the last ship, they sent another of five-and-fifty tons to supply them ; with seven-and-thirty persons they set sail in the beginning of July, but being crossed by westerly winds, it was the end of August ere they could pass Plymouth, and arrived in New England at New Plymouth, now so called, the 11th of November,

November, where they found all the people they left so ill, lusty and well for all their poverty, except six, that died: a month they staid ere they returned to England, loaded with clap-board, wainscot and wallnut, with about three hogshheads of beaver skins the 13th of December; and drawing near our coast was set on by a Frenchman set out by the Marquis of Cera, governor of Isle Dieu, where they kept the ship, imprisoned the master and company, took from them to the value of five hundred pounds, and after fourteen days sent them home with a poor supply of victuals, their own being devoured by the Marquis and his hungry servants.

Now you are to understand this thirty-seven brought nothing, but relied wholly on us to make us more miserable than before, which the Sachem Couanacus no sooner understood, but sent to Tusquantum our interpreter, a bundle of new arrows in a snake's skin; Tusquantum being absent, the messenger departed; but when we understood it was a direct challenge, we returned the skin full of powder and shot, with an absolute defiance, which caused us finish our fortification with all expedition. Now betwixt our two savages, Tusquantum and Hobbamock, grew such great emulation, we had much ado to know which best to trust. In a journey we undertook, in our way we met a savage of Tusquantums, that had cut his face fresh bleeding, to assure us Massasoyt, our supposed friend, had drawn his forces to Packanokick to assault us. Hobbamock as confidently assured us it was false, and sent his wife as a spy to see; but when she perceived all was well, she told the King Massasoyt how Tusquantum had abused him, divers savages also he had caused to believe we would destroy them, but he would do his best to appease us; this he did only to make his countrymen believe what great power he had with us to get bribes on both sides, to make peace or war when he would; and the more to possess them with fear, he persuaded many we had buried the plague in our store-house, which we could send when we listed whither we would; but at last all his knavery being discovered, Massasoyt sent his knife with messengers for his head or him, being his subject; with much ado we appeased the angry King and the rest of the savages, and freely forgave Tusquantum, because he speaking our language we could not well be without him.

A Journey to the Town of Namaschet, in defence of the King of Massasoyt, against the Narrohigganfes, and the supposed Death of Squantum.

A GREAT difference there was betwixt the Narrohigganfes and the Massasoyts, that had always a jealousy; Coubatant, one of their petty Sachems, was too conversant with the Narrohigganfes: this Coubatant lived much at Namaschet, and much stirmed at our peace with his King and others; also at Squantum, and Tokamahamon, and Hobbamock our friends, and chief occasioners of our peace, for which he sought to murder Hobbamock; yet Tokamahamon went to him upon a rumour he had taken Massasoyt prisoner, or forced him from his country, but the other two would not, but in private to see if they could hear what was become of their King; lodging at Namaschet they were discovered to Coubatant, who surprized the house and took Squantum, saying, if he were dead the English had lost their tongues; Hobbamock seeing that, and Coubatant held a knife at his breast, being a strong lusty fellow, broke from them, and came to New Plymouth, full of sorrow for Squantum, who he thought was slain.

The next day we sent ten men with him armed, to be revenged of Coubatant, who conducted us near Namaschet, where we rested and refreshed ourselves till midnight, and then we beset the house as we had resolved; those that entered the house demanded for Coubatant; but the savages were half dead with fear: we charged them not to

stir, for we came to hurt none but Coubatant, for killing Squantum ; some of them seeking to escape were wounded : but at last perceiving our ends, they told us Coubatant was gone, and all his men, and Squantum was yet living, and in the town ; in this hurly-burly we discharged two pieces at random, which much terrified all the inhabitants, except Squantum and Tokamahamon, who, though they knew not the end of our coming, yet assured themselves of our honesty, that we would not hurt them. The women and children hung about Hobbamock, calling him, friend ; and when they saw we would hurt no women, the young youths cried, We are women : to be short, we kept them all, and whilst we were searching the house for Coubatant, Hobbamock had got to the top, and called Squantum and Tokamahamon, which came unto us accompanied with others, some armed, others naked, those that had bows we took them from them, promising them again when it was day : the house we took for our quarter that night, and discharged the prisoners, and the next morning went to breakfast at Squantum's house ; thither came all them that loved us to welcome us, but all Coubatant's faction was fled : then we made them plainly know the cause of our coming, and if their King Massafoyt were not well, we would be revenged upon the Narrohiggansets, or any that should do injury to Hobbamock, Squantum, or any of their friends ; as for those were wounded we were sorry for it, and offered our surgeon should heal them ; of this offer a man and a women accepted, that went home with us, accompanied with Squantum and many other known friends, that offered us all the kindness they could.

From the west of England there are gone ten or twelve ships to fish, which were all well freighted ; those that came first at Bilbow, made seventeen pounds a single share, besides beavers, otters, and martin's skins ; but some of the rest that came to the same ports, that were all ready furnished, so glutted the market, that the price was abated ; yet all returned so well contented, that they are preparing to go again.

There is gone from the West Country only to fish, five-and-thirty ships, and about the last of April two more from London, the one of one hundred tons, the other of thirty, with some sixty passengers to supply the plantation. Now though the Turks and French have been somewhat too busy in taking our ships, would all the Christian princes be truly at unity, as His Royal Majesty our Sovereign King James desireth, seventy sail of good ships were sufficient to fire the most of his coasts in the Levant, and make such a guard in the Straits of Hellespont, as would make the great Turk himself more afraid in Constantinople ; than the smallest red-cross that crosses the seas would be, either of any French pickaroon, or the pirates of Algiers.

An Abstract of divers Relations sent from the Colony in New England, July 16, 1622.

SINCE the massacre in Virginia, though the Indians continue their wonted friendship, yet we are more wary of them than before ; for their hands hath been imbrued in much English blood, only by too much confidence, but not by force, and we have had small supplies of any thing but men. Here I must intreat a little your favour to digress, they did not kill the English in Virginia, because they were Christians, but for their weapons and copper, which were rare novelties ; but now they fear we may beat them out of their dens, which lions and tigers will not admit but by force. But must this be an argument for an Englishman, and discourage any in Virginia or New England ? No ; for I have tried them both, as you may read at large in the History of Virginia : notwithstanding since I came from thence, the honourable company hath been humble suitors to His Majesty, to get vagabonds and condemned men to go thither ; nay, so the business hath been so abused, that so much scorned was the name of Virginia,

ginia, some did chuse to be hanged ere they would go thither, and were: yet for all the worst of spite, detraction, and discouragement, and this lamentable massacre, there is more honest men now suitors to go, than ever hath been constrained knaves. And it is not unknown to most men of understanding, how happy many of those Columners have thought themselves that they might be admitted; and yet pay for their passage to go now to Virginia, and I fear me there goeth too many of those that have shifted here till they could no longer; and they will use that quality there till they hazard all.

To range this country of New England in like manner, I had but eight, as is said, and amongst their bruit conditions, I met many of their silly encounters, and I give God thanks, without any hurt at all to me, or any with me. When your west-country men were so wounded and tormented with the savages, though they had all the politic directions that had been gathered from all the secret informations could be heard of, yet they found little, and returned with nothing. I speak not this out of vain-glory, as it may be some gleaners, or some who were never there may censure me; but to let all men be assured by those examples, what those savages are that thus strangely do murder and betray our countrymen: but to the purpose.

The Paragon, with thirty-seven men sent to relieve them, miscarried twice upon our English coast, whereby they failed of their supplies. It is true, there hath been taken one thousand bales at a draught; and in one night twelve hogheads of herrings: but when they wanted all necessaries both for fishing and sustenance, but what they could get with their naked industry, they endured most extreme wants, having been now near two years without any supply to any purpose, it is a wonder how they should subsist, much less so to resist the savages, fortify themselves, plant sixty acres of corn, besides their gardens that were well replenished with many usual fruits. But in the beginning of July came in two ships of Mr. Weston's, though we much wanted ourselves, yet we relieved them what we could; and to requite us, they destroyed our corn and fruits then planted, and did what they could to have done the like to us. At last they were transported to Wichaguscusset at the Massachusetts, where they abused the savages worse than us. We having neither trade, nor scarce any thing remaining, God sent in one Mr. Jones, and a ship of Weston's had been at Monahigan amongst the fishermen, that for beaver-skins and such merchandize as we had, very well refreshed us, though at dear rates. Weston left also his men, a small bark, and much good provision, and so set sail for England: then we joined with them to trade to the southward of Cape Cod, twice or thrice we were forced to return; first by the death of their governor, then the sickness of Captain Standish. At last our governor Mr. Bradford undertook it himself to have found the passage betwixt the shoals and the main, then Tufquantum our pilot died, so that we returned to the Massachusetts, where we found the trade spoiled, and nothing but complaints betwixt the savages and the English. At Nawset we were kindly used, and had good trade, though we lost our barge, the savages carefully kept both her wreck and some ten hogheads of corn three months, and so we returned, some by land, some in the ship.

Captain Standish being recovered, went to fetch them both, and traded at Namasket and Monomete, where the people had the plague, a place much frequented with Dutch and French. Here the Sachem put a man to death for killing his fellow at play, wherein they are so violent, they will play their coats from their backs, and also their wives, though many miles from them. But our provision decaying, Standish is sent to Mattachist, where they pretended their wonted love; yet it plainly appeared they intended to kill him. Escaping thence, we went to Monomete, where we found nothing but bad countenances. Here one Wittuwamat, a notable villain, would boast

how many French and English he had slain: this champion presenting a dagger to the Sachem Canacum he had got from the English, occasioned us to understand how they had contrived to murder all the English in the land, but having such a fair opportunity, they would begin here with us. Their scornful usage made the captain so passionate to appease his anger and choler, their intent made many fair excuses for satisfaction: Scar, a lusty savage, always seeming the most to affect us, bestowed on us the best presents he had without any recompence, saying he was rich enough to bestow such favours on his friends, yet had undertaken to kill the captain himself; but our vigilances so prevented the advantage they expected, we safely returned, little suspecting in him any such treachery.

During this time a Dutch ship was driven ashore at Massasowat, whose King lay very sick, now because it is a general custom then for all their friends to visit them, Mr. Winslow and Mr. Hamden, with Habamock for their guide, were sent with such cordials as they had to salute him; by the way they so often heard the King was dead, Habbamock would break forth in these words, "My loving Sachem, my loving Sachem, many have I known, but never any like thee, nor shall ever see the like amongst the savages; for he was no liar, nor bloody and cruel like other Indians, in anger soon reclaimed, he would be ruled by reason, not scorning the advice of mean men, and governed his men better with a few strokes than others with many: truly loving where he loved, yea, he feared we had not a faithful friend left amongst all his countrymen, shewing how oft he had restrained their malice:" much more with much passion he spoke to this purpose, till at last we arrived where we found the Dutchmen but newly gone, and the house so full we could hardly get in. By their charms they distempered us that were well, much more him that was sick, women rubbing him to keep heat in him; but their charms ended, understanding of us, though he had lost his sight, his understanding failed not; but taking Winslow by the hand, said, Art thou Winslow, oh Winslow, I shall never see thee again! Habamock telling him what restoratives they had brought, he desired to taste them; with much ado they got a little confection of many comfortable conserves into his mouth, as it dissolved he swallowed it, then dissolving more of it in water, they scraped his tongue, which was all furred and swollen, and washed his mouth, and then gave him more of it to eat, and in his drink, that wrought such an alteration in him in two or three hours, his eyes opened to our great contents; with this and such broths as they there provided for him, it pleased God he recovered: and thus the manner of his sickness and cure caused no small admiration amongst them.

During the time of their stay to see his recovery, they had sent to New Plymouth for divers good things for him, which he took so kindly, that he fully revealed all the former conspiracies against us, to which he had oft been moved; and how that all the people of Powmet, Nawset, Succonet, Mattachist, Manamet, Augawam, and Capawac, were joined to murder us; therefore as we respected our lives, kill them of Massachusets that were the authors; for take away the principals and the plot will cease; thus taking our leaves, and arriving at our fort, we found our brave liberal friend of Pamet drawing Standish to their ambuscadoes, which being thus discovered, we sent him away, as though he knew nor suspected any thing. Then at the Massachusets, some were so wild they served the savages for victuals, the rest sent us word the savages were so insolent they would assault them though against their commission, so fearful they were to break their commission, so much time was spent in consultations, they all were famished, till Wassapinewat again came and told them the day of their execution was at hand.

Then they appointed Standish with eight chosen men, under colour of trade to catch them in their own trap at Massachusset, and acquaint it with the English in the town, where arriving, he found none in the bark, and most of the rest without arms, or scarce cloaths, wandering abroad, all so senselessly secure, he more than wondered they were not all slain; with much ado he got the most of them to their town. The savages suspecting their plots discovered, Pecksnott, a great man, and of as great a spirit, came to Habamok, who was then amongst them, saying, Tell Standish we know he is come to kill us, but let him begin when he dare. Not long after many would come to the fort and whet their knives before him, with many braving speeches. One amongst the rest was by Wittawamat, bragging he had a knife that on the handle had the picture of a woman's face; but at home I have one hath killed both French and English, and that hath a man's face on it, and by-and-by these two must marry; but this here by-and-by shall see, and by-and-by eat, but not speak; also Pecksnott being of a greater stature than the captain, told him, though he were a great captain he was but a little man, and I, though no Sachem, yet I am of great strength and courage. These things Standish bore patiently for the present; but the next day seeing he could not get many of them together, but these two roarers, and two more being in a convenient room, and his company about him, Standish seized on Pecksnott's knife then hanging about his neck, wherewith he slew him, and the rest slew Wittawamat and the other savage; but the youth they took, who being brother to Wittawamat, and as villainous as himself, was hanged. It is incredible how many wounds they endured, catching at their weapons without any fear or bruit, till the last gasp. Habamok stood by all this time very silent; but all ended, he said, "Yesterday Pecksnott bragged of his strength and stature, but I see you are big enough to lay him on the ground."

The town he left to the guard of Weston's people: three savages more were slain; upon which rumour they all fled from their houses. The next day they met with a file of savages that let fly their arrows, shot for shot, till Habamok shewed himself, and then they fled. For all this, a savage boy, to shew his innocency, came boldly unto us, and told us, had the English fugitives but finished the three canoes they were making, to have taken the ship, they would have done as much to all the English, which was only the cause they had forborne so long. But now consulting and considering their estates, those that went in the pinnace to Barty Isles to get passage for England, the rest to New Plymouth, where they were kindly entertained. The Sachem Obtakeest, and Powas, and divers others were guilty, the three fugitives in their fury there flew; but not long after so distracted were those poor scattered people, they left their habitations, living in swamps, where with cold and infinite diseases they endured much mortality, suing for peace, and crying, The God of England is angry with them. Thus you see where God pleases, as some flourish, others perish.

Now on all hands they prepare their ground, and about the middle of April, in a fair season, they begin to plant till the latter end of May; but so God pleased, that in six weeks after the latter setting their scarce fell any rain; so that the stalk was first set, began to ear ere it came to half growth, and the last not like to yield any thing at all. Our beans also seemed so withered, we judged all utterly dead; that now all our hopes were overthrown, and our joy turned into mourning. And more to our sorrow, we heard of the twice return of the Paragon, that now the third time was sent us three months ago, but no news of her: only the signs of a wreck we saw on the coast which we judged her. This caused not every of us to enter into a private consideration betwixt God and our consciences, but most solemnly to humble ourselves before the

Lord by fasting and praying, to relieve our dejected spirits by the comforts of his mercy. In the morning when we assembled all together, the skies were as clear, and the drought as like to continue as ever; yet our exercise continued eight or nine hours. Before our departure, the skies were all over-cast, and on the next morning distilled such soft, sweet, moderate showers, continuing fourteen days, mixed with such seasonable weather, as it was hard to say, whether our withered corn or drooping affections were most quickened and revived; such was the bounty and mercy of God. Of this the Indians, by the means of Habamok, took notice, who seeing us use this exercise in the midst of the week, said; It was but three days since Sunday, and desired to know the reason; which when he understood, he and all of them admired the goodness of God towards us, shewing the difference betwixt their conjurations and our prayers, and what storms and dangers they oft receive thereby. To express our thankfulness, we assembled together another day, as before, and either the next morning, or not long after, came in two ships to supply us, and all their passengers well except one, and he presently recovered. For us, notwithstanding all these wants, there was not a sick person amongst us. The greater ship we returned freighted; the other we sent to the southward, to trade under the command of Captain Altom. So that God be thanked, we desire nothing, but what we will return commodities to the value.

Thus all men find our great God he,
That never wanted nature,
To teach his truth, that only he,
Of every thing is author.

For this year from England is gone about forty sail of ships, only to fish; and as I am informed, have made a far better voyage than ever.

Now some new great observers will have this an island, because I have written it is the continent: others report, that the people are so brutish, they have no religion, wherein surely they are deceived; for my part, I never heard of any nation in the world which had not a religion, deer, bows and arrows. They believe, as do the Virginians, of many divine powers, yet of one above all the rest, as the Southern Virginians call their chief god Kewassa, and that we now inhabit Oke; but both their kings Werowance. The Massachusetts call their great god Kiehtan, and their kings thereabouts Sachems: the Penobscotes their greatest power Tantom, and their kings Sagomos. Those where is this plantation, say Kiehtan made all the other gods: also one man and one woman, and of them all mankind, but how they became so dispersed they know not. They say, at first there was no king but Kiehtan that dwelleth far westerly above the heavens, whither all good men go when they die, and have plenty of all things. The bad men go thither also and knock at the door, but he bids them go wander in endless want and misery, for they shall not stay there. They never saw Kiehtan, but they hold it a great charge and duty, that one age teach another; and to him they make feasts, and cry and sing for plenty and victory, or any thing is good. They have another power they call Hobamock, which we conceive the devil; and upon him they call to cure their wounds and diseases: when they are curable, he persuades them he sent them, because they have displeased him; but if they be mortal, then he saith, Kiehtan sent them, which makes them never call on him in their sickness. They say this Hobamock appears to them sometimes like a man, a deer, or an eagle, but most commonly like a snake; not to all, but only to their Powahs to cure diseases, and Undeses, which is one of the chief next the King, and so bold in the wars, that they think no weapon can kill them: and those are such as conjure in Virginia, and cause the people to do what they list.

For

For their government: every Sachemis is not a king, but their great Sachems have divers Sachem under their protection, paying them tribute, and dare make no wars without his knowledge; but every Sachem taketh care for the widows, orphans, the aged and maimed, nor will they take any to first wife, but them in birth equal to themselves, although they have many inferior wives and concubines that attend on the principal; from whom he never parteth, but any of the rest when they list; they inherit by succession, and every one knows their own bounds. To his men, he giveth them land, also bounded, and what deer they kill in that circuit, he hath the fore-part; but if in the water, only the skin: but they account none a man till he hath done some notable exploit: the men are most employed in hunting, the women in slavery; the younger obey the elders: their names are variable; they have harlots and honest women; the harlots never marry, or else are widows. They use divorcement, and the King commonly punisheth all offenders himself: when a maid is married, she cutteth her hair, and keeps her head covered till it be grown again. Their arts, games, music, attire, burials, and such like, differ very little from the Virginians, only for their chronicles they make holes in the ground, as the others set up great stones.

Out of the relations of Mr. EDWARD WINSLOW.

Now I know the common question is, for all those miseries, where is the wealth they have got, or the gold or silver mines? To such greedy unworthy minds I say once again: the sea is better than the richest mine known, and of all the fishing-ships that went well provided, there is no complaint of loss nor misery, but rather an admiration of wealth, profit, and health. As for the land, were it never so good, in two years so few of such small experience living without supplies so well, and in health, it was an extraordinary blessing from God. But that with such small means they should subsist and do so much, to any understanding judgment is a wonder. Notwithstanding, the vain expectation of present gain in some, ambition in others, that to be great would have all else slaves, and the carelessness in providing supplies, hath caused those defaultments in those plantations, and however some bad conditions will extol the actions of any nation but their own; yet if we may give credit to the Spaniards, Portuguese, and French writings, they endured as many miseries, and yet not in twenty years effected so much, nay scarce in forty.

Thus you may see plainly the yearly success from New England by Virginia, which hath been so costly to this kingdom, and so dear to me, which either to see perish, or but bleed: Pardon me, though it passionate me beyond the bounds of modesty, to have been sufficiently able to foresee their miseries, and had neither power nor means to prevent it. By that acquaintance I have with them, I call them my children: for they have been my wife, my hawks, hounds, my cards, my dice, and in total, my best content, as indifferent to my heart as my left hand to my right. And notwithstanding, all those miracles of disasters have crossed both them and me, yet were there not an Englishman remaining, as God be thanked, notwithstanding the massacre, there are some thousands; I would yet begin again with as small means as I did at first, not that I have any secret encouragement (I protest) more than lamentable experience; for all their discoveries I have yet heard of, are but pigs of my own sow, nor more strange to me than to hear one tell me he hath gone from Billingsgate and discovered Gravesend, Tilbury, Queenborough, Lee, and Margate, which to those did never hear of them, though they dwell in England, might be made some rare secrets and great countries unknown, except some few relations of Mr. Dirmer. In England some are held great travellers that have seen Venice and Rome, Madrid, Toledo, Seville, Algiers, Prague or Ragoufa, Constantinople or Jerusalem, and the pyramids of Egypt; that think it nothing to go to

Summer Isles or Virginia, which is as far as any of them, and I hope in time will prove a more profitable and a more laudable journey; as for the danger, you see our ladies and gentlemen account it nothing now to go thither; and therefore I hope all good men will better apprehend it, and not suffer them to languish in despair, whom God so wonderfully and oft hath preserved.

What here I have writ by relation, if it be not right I humbly entreat your pardons, but I have not spared any diligence to learn the truth of them that have been actors, or sharers in those voyages; in some particulars they might deceive me, but in the substance they could not: for few could tell me any thing, except where they fished. But seeing all those have lived there, do confirm more than I have writ, I doubt not but all those testimonies with these new-begun examples of plantation, will move both city and country freely to adventure with me more than promises.

But because some fortune-tellers say, I am unfortunate; had they spent their time as I have done, they would rather believe in God than their calculations, and peradventure have given as bad an account of their actions; and therefore I entreat leave to answer those objectors, that think it strange, if this be true, I have made no more use of it, rest so long without employment, nor have no more reward nor preferment; to which I say;

I think it more strange they should tax me, before they have tried as much as I have, both by land and sea, as well in Asia and Africa, as Europe and America, where my commanders were actors or spectators, they always so freely rewarded me, I never needed be importunate, or could I ever learn to beg: what there I got, I have spent; yet in Virginia I staid, till I left five hundred behind me better provided than ever I was, from which blessed Virgin (ere I returned) sprung the fortunate habitation of Summer Isles.

This Virgin's Sister, now called New England, at my humble suit, by our most gracious Prince Charles, hath been near as chargeable to me and my friends: for all which, although I never got a shilling but it cost me a pound, yet I would think myself happy could I see their prosperities.

But if it yet trouble a multitude to proceed upon these certainties, what think you I undertook when nothing was known but that there was a vast land? I never had power and means to do any thing, though more hath been spent in formal delays than would have done the business, but in such a penurious and miserable manner, as if I had gone a begging to build an university; where had men been as forward to adventure their purses, and perform the conditions they promised me, as to crop the fruits of my labours, thousands ere this had been bettered by these designs. Thus betwixt the spur of desire and the bridle of reason, I am near ridden to death in a ring of despair; the reins are in your hands, therefore I entreat you ease me; and those that think I am either idle or unfortunate, may see the cause and know; unless I did see better dealing, I have had warning enough not to be so forward again at every motion upon their promises, unless I intended nothing but to carry news; for now they dare adventure a ship, that when I went first would not adventure a groat, so they may be at home again by Michaelmas, which makes me remember and say with Mr. Hackluit; Oh incredulity, the wit of fools, that flowingly do spit at all things fair; a sluggard's cradle, a coward's castle: how easy it is to be an infidel! But to the matter: By this all men may perceive, the ordinary performance of this voyage in five or six months; the plenty of fish is most certainly approved; and it is certain, from Canada and New England, within these six years hath come near twenty thousand beaver-skins. Now had each of these ships transported but some small quantity of the most increasing beasts, fowls,

fowls, fruits, plants, and feeds, as I projected, by this time their increase might have been sufficient for more than one thousand men; but the desire of present gain in many is so violent, and the endeavours of many undertakers so negligent, every one so regarding their private gain, that it is hard to effect any public good, and impossible to bring them into a body, rule, or order, unless both honesty, as well as authority and money, assist experience. But your home-bred engrossing projectors will at last find, there is a great difference betwixt saying and doing, or those that think their directions can be as soon and easily performed, as they can conceit them; or that their conceits are the fittest things to be put in practice, or their countenances maintain plantations. But to conclude, the fishing will go forward whether you plant it or no; whereby a colony may be then transported with no great charge, that in short time might provide such freights, to buy on us there dwelling, as I would hope no ship should go or come empty from New England.

The charge of this is only salt, nets, hooks, lines, knives, Irish rugs, coarse cloth, beads, glass, and such trash, only for fishing and trade with the savages, besides our own necessary provisions, whose endeavours would quickly defray all this charge; and the savages did entreat me to inhabit where I would. Now all those ships, till these last two years, have been fishing within a square of two or three leagues, and scarce any one yet will go any further in the port they fish in, where questionless five hundred may have their freight as well as elsewhere, and be in the market ere others can have the fish in their ships, because New England's fishing begins in February, in Newfoundland not till the midst of May; the progression hereof tends much to the advancement of Virginia and the Summer Isles, whose empty ships may take in their freights there, and would be also in time of need a good friend to the inhabitants of Newfoundland.

The returns made by the western men, are commonly divided in three parts; one for the owner of the ship; another for the master and his company; the third for the victuallers, which course being still permitted, will be no hindrance to the plantation, as yet go there never so many, but a means of transporting that yearly for little or nothing, which otherwise will cost many hundreds of pounds. If a ship can gain twenty, thirty, fifty in the hundred; nay three hundred for one hundred in seven or ten months, as you see they have done, spending twice so much time in coming and going as in staying there: were I there planted, seeing the variety of the fishings serve the most part of the year, and with a little labour we might make all the salt we need use, as is formerly said, and conceive no reason to distrust of good success by God's assistance; besides for the building of ships, no place hath more convenient harbours, ebb, nor flood, nor better timber; and no commodity in Europe doth more decay than wood.

Mr. Dee's Opinion for the building of Ships.

MR. DEE recordeth in his British Monarchy, that King Edgar had a navy of four thousand sail, with which he yearly made his progress, about this famous monarchy of Great Britain, largely declaring the benefit thereof; whereupon he projected to our most memorable Queen Elizabeth, the erecting of a fleet of sixty sail, he called a little navy royal: imitating that admired Pericles Prince of Athens, that could never secure that tormented estate, until he was lord and captain of the sea. At this none need wonder, for who knows not Her Royal Majesty during her life, by the incredible adventures of her royal navy, and valiant soldiers and seamen, notwithstanding all treacheries

cheries at home, the protecting and defending France and Holland, and reconquering Ireland; yet all the world by sea and land both feared or loved, and admired good Queen Elizabeth. Both to maintain and increase that incomparable honour (God be thanked) to her incomparable successor, our most Royal Lord and Sovereign King James, this great philosopher hath left this to His Majesty and his kingdom's consideration: that if the tenths of the earth be proper to God, it is also due by sea. The King's highways are common to pass, but not to dig for mines or any thing: so England's coasts are free to pass but not to fish, but by His Majesty's prerogative.

His Majesty of Spain permits none to pass the Pope's order for the East and West Indies, but by his permission, or at their perils; if all that world be so justly theirs, it is no injustice for England to make as much use of her own shores as strangers do, that pay to their own lords the tenth, and not to the owner of those liberties any thing to speak of, whose subjects may neither take nor sell any in their territories; which small tribute would maintain this little Navy Royal, and not cost His Majesty a penny, and yet maintain peace with all foreigners, and allow them more courtesy than any nation in the world affords to England. It were a shame to alledge, that Holland is more worthy to enjoy our fishing as lords thereof, because they have more skill to handle it than we, as they can our wool and undressed cloth, notwithstanding all their wars and troublesome disorders.

To get money to build this navy, he saith, who would not spare the one-hundredth penny of his rents, and the five-hundredth penny of his goods; each servant that taketh forty shillings wages, four-pence; and every foreigner of seven years of age, four-pence for seven years; not any of these but they will spend three times so much in pride, wantonness, or some superfluity; and do any men love the security of their estates, that of themselves would not be humble suitors to His Majesty to do this of free will as a voluntary benevolence, or but the one-half of this (or some such other course, as I have prounded to divers of the companies), free from any constraint, tax, lottery, or imposition; so it may be as honestly and truly employed as it is projected, the poorest mechanic in this kingdom would gain by it. Then you might build ships of any proportion and numbers you please, five times cheaper than you can do here, and have good merchandize for their freight in this unknown land, to the advancement of God's glory, his church and gospel, and the strengthening and relief of a great part of Christendom without hurt to any, to the terror of pirates, the amazement of enemies, the assistance of friends, the securing merchants, and so much increase of navigation, to make England's trade and shipping as much as any nations in the world, besides a hundred other benefits, to the general good of all true subjects, and would cause thousands yet unborn to bless the time, and all them that first put it in practice.

Now lest it should be obscured as it hath been to private ends, or so weakly undertaken by our overweening incredulity, that strangers may possess it, whilst we contend for New England's goods, but not England's good; I have presented it, as I have said, to the Prince and nobility, the gentry and commonalty, hoping at last it will move the whole land to know it and consider of it; since I can find them wood and half victuals, with the aforesaid advantages: were this country planted, with what facility they may build and maintain this little navy royal, both with honour, profit, and content, and inhabit as good a country as any in the world within that parallel, which with my life and what I have, I will endeavour to effect, if God please and you permit. But no man will go from hence to have less freedom there than here, nor adventure all they have to prepare the way for them, will scarce thank them for it; and

and it is too well known there have been so many undertakers of patents, and such sharing of them, as hath bred no less discouragement than wonder to hear such great promises and so little performance; in the interim, you see the French and Dutch already frequent it, and God forbid they in Virginia, or any of His Majesty's subjects, should not have as free liberty as they. To conclude, were it not for Mr. Cherley, and a few private adventurers with them, what have we there for all these inducements? As for them whom pride or covetousness lulled asleep in a cradle of slothful carelessness, would they but consider how all the great monarchies of the earth have been brought to confusion, or but remember the late lamentable experiences of Constantinople, and how many cities, towns, and provinces, in the fair rich kingdoms of Hungaria, Transylvania, Wallachia, and Moldavia, and how many thousands of princes, earls, barons, knights, merchants, and others, have in one day lost goods, lives, and honours, or sold for slaves like beasts in a market-place, their wives, children, and servants slain, or wandering they knew not whither, dying or living in all extremities of extreme miseries and calamities, surely they would not only do this, but give all they have to enjoy peace and liberty at home, or but adventure their persons abroad, to prevent the conclusions of a conquering foe, who commonly assaulteth, and best prevaileth where he findeth wealth and plenty most armed with ignorance and security.

Though the true condition of war is only to suppress the proud and defend the innocent, as did that most generous Prince Sigismundus, Prince of those countries, against them whom, under the colour of justice and piety, to maintain their superfluity of ambitious pride, thought all the world too little to maintain their vice, and undo them, or keep them from ability to do any thing that would not admire and adore their honours, fortunes, covetousness, falsehood, bribery, cruelty, extortion, and ingratitude, which is worse than cowardice or ignorance, and all manner of vileness, clean contrary to all honour, virtue, and nobleness.

JOHN SMITH writ this with his own hand.

Here follow certain notes and observations of Captain Charles Whitbourne concerning Newfoundland, which although every master trained up in fishing can make their proportions of necessaries according to their custom, yet it is not much amiss here to insert them, that every one which desires the good of those actions know them also. Besides in his book, entitled 'A Discovery of Newfoundland, and the Commodities thereof,' you shall find many excellent good advertisements for a plantation, and how that most years this coast hath been frequented with two hundred and fifty sail of His Majesty's subjects, which supposing but sixty tons a-piece, one with another, they amount to fifteen thousand tons, and allowing twenty-five men and boys to every bark, they will make five thousand persons, whose labours return yearly to about one hundred and thirty-five thousand pounds sterling, besides the great numbers of brewers, bakers, coopers, ship-carpenters, net-makers, rope-makers, hook-makers, and the most of all other mechanical trades in England.

The charge of setting forth a ship of one hundred tons with forty persons, both to make a fishing voyage, and increase the plantation.

	£.	s.	d.		£.	s.	d.
Imprimis, 10,000 weight of biscuit, at 15s. a cwt. -	82	10	0	2 Brazen cocks, -	2	0	0
26 Tuns of beer and cyder, at 53s. 4d. a tun, -	69	7	0	Canvas to make boat-sails and small ropes, at 25s. for each fail, -	12	10	0
2 Hogsheds of English beef, -	10	0	0	10 Rod ropes, which contain 600 weight, at 30s. the 100, -	10	0	0
2 Hogsheds of Irish beef, -	5	0	0	12 Dozen of fishing-lines, -	6	0	0
10 Fat hogs, salted with salt, and casks, -	10	10	0	24 Dozen of fishing-hooks, -	2	0	0
30 Bushels of pease, -	6	0	0	For squid line, -	0	3	0
2 Firkins of butter, -	3	0	0	For pots and liver maunds, -	0	18	0
200 Weight of cheese, -	2	10	0	Iron works for the boats' ruders, -	2	0	0
1 Bushel of mustard, -	0	6	0	10 Kipnet irons, -	0	10	0
1 Hogshhead of vinegar, -	1	5	0	Twine to make kipnets and gagging hooks, -	0	6	0
Wood to dress meat withal, -	1	0	0	10 good nets, at 26s. a net, -	13	0	0
1 Great copper kettle, -	2	0	0	2 Saynes, a great and a less, -	12	0	0
2 Small kettles, -	2	0	0	200 Weight of sow-lead, -	1	0	0
2 Frying-pans, -	0	3	4	2 Couple of ropes for the seans, -	1	0	0
Platters, ladles, and cans, -	1	0	0	Dry-fats to keep them in, -	0	6	0
A pair of bellows for the cook, -	0	2	6	Twine for store, -	0	5	0
Taps, borers, and funnels, -	0	2	0	Flaskets and bread-baskets, -	0	15	0
Locks for the bread-rooms, -	0	2	6	For hair cloth, -	10	0	0
100 Weight of candles, -	2	10	0	3 Tuns of vinegar cask for water, -	1	6	8
130 Quarters of salt, at 2s. the bushel, -	10	4	0	1 Dozen of deal boards, -	0	10	0
Mats and dinnage to lie under it, -	2	10	0	2 Barrels of oatmeal, -	1	6	0
Salt shovels, -	0	10	0	100 Weight of spikes, -	2	5	0
Particulars for the 40 persons to keep 8 fishing boats at sea, with 3 men in every boat, employs 24, and 500 feet of elm boards of an inch thick, 8s. each one, -	2	0	0	2 Good axes, 4 hand-hatchets, 4 drawers, 2 drawing irons, -	0	16	0
2000 Nails for the 8 boats, at 13s. 4d. a 1000, -	1	6	8	3 Yards of woollen cloth for cuffs, -	0	10	0
4000 Nails, at 6s. 8d. a 1000, -	1	6	8	8 Yards of good canvas, -	0	10	0
2000 Nails, at 5d. a 100, -	0	8	0	A Grindstone or two, -	0	6	0
500 Weight of pitch, at 8s. a 100, -	2	0	0	2000 of poor-john to spend in going, -	6	10	0
2000 of good orlop nails, -	2	5	0	1 Hogshhead of aqua-vitæ, -	4	0	0
More for other small necessaries, -	3	0	0	4 Arm saws, 4 hand saws, 4 thwart saws, 3 augers, 2 crows of iron, 3 fledges, 4 shod shovels, 2 pick-axes, 4 mattocks, and 4 hammers, -	5	0	0
A barrel of tar, -	0	10	0				
200 Weight of black oakum, -	1	0	0				
Thrums for pitch maps, -	0	1	6				
Bowls, buckets, and pumps, -	1	0	0				
				The total sum is -	420	11	0
							All

All these provisions the master or purser is to be accountable what is spent and what is left, with those which shall continue there to plant ; and of the forty thus provided for the voyage, ten may well be spared to leave behind them, with five hundred weight of biscuit, five hogheads of cyder or beer, half a hoghead of beef, four sides of dry bacon, four bushels of pease, half a firkin of butter, half a hundred weight of cheese, a peck of mustard-seed, a barrel of vinegar, twelve pounds of candles, two pecks of oatmeal, half a hoghead of aqua-vitæ, two copper kettles, one brass crock, one frying-pan, a grindstone, and all the hatches, wood-hooks, saws, augers, &c., and all other iron tools, with the eight boats and their implements, and spare salt, and what else they use, not in a readiness from year to year, and in the mean time served them to help to build their houses, cleanse land, and further their fishing whilst the ships are wanting.

By his estimation and calculation these eight boats with twenty-two men in a summer do usually kill twenty-five thousand fish for every boat, which may amount to two hundred thousand, allowing a hundred and twenty fishes to the hundred ; sometimes they have taken above thirty-five thousand for a boat ; so that they load not only their own ship, but provide great quantities for sacks, or other spare ships which come thither only to buy the overplus : if such ships come not, they give over taking any more, when sometimes there hath been great abundance, because there are no fit houses to lay them in till another year ; now most of those sacks goeth empty thither, which might as well transport men's provision and cattle at an easy rate as nothing, either to New England or Newfoundland, but either to transport them for nothing, or pay any great matter for their liberty to fish, will hardly effect so much as freedom as yet ; nor can this be put in practice, as I before said, till there be a power there well planted and settled to entertain and defend them, assist and relieve them as occasion shall require, otherwise those small divisions will effect little, but such miserable conclusions as both the French and we too long have tried to our costs. Now commonly two hundred thousand fish will load a ship of one hundred tons in Newfoundland, but half so many will near do it in New England, which carried to Toulon or Marseilles, where the custom is small, and the quintal less than ninety English pounds weight, and the price, when least, twelve shillings the quintal, which at that rate amounts to one thousand three hundred and twenty pounds sterling ; and the ship may either there be discharged or employed, as hath been said, to re-freight for England, so that the next year she may be ready to go her fishing-voyage again at a far cheaper rate than before.

To this add but twelve tons of train-oil, which delivered in Newfoundland, is ten pounds the ton, makes one hundred and twenty pounds, then it is hard if there be not ten thousand of core-fish, which also sold there at five pounds the thousand, makes fifty pounds, which brought to England, in some places yields near half so much more ; but if at Marseilles it be sold for sixteen pounds the quintal, as commonly it is, and much dearer, it amounts to one thousand seven hundred and sixty pounds ; and if the boats follow the fishing till the 15th of October, they may take eighty thousand more, which with their train in Newfoundland, at four pounds the thousand, will amount to three hundred and twenty pounds, which added to one thousand three hundred and twenty pounds, with one hundred and twenty pounds for oil, and ten thousand of core-fish fifty pounds, and the overplus at Marseilles, which will be four hundred and forty pounds, make the total two thousand two hundred and fifty pounds, which divided in three parts, according to their custom, the victualler hath for the former particulars, amounting to four hundred and twenty pounds, seven hundred and fifty-one pounds ; so all the charge defrayed, he gains three hundred and thirty-

one pounds eleven shillings; then for the freight of the ship there is seven hundred and fifty-one pounds, and so much for the master and his company; which comparing with the voyages hath been made to New England, you may easily find which is the better though both be good. But now experience hath taught them at New Plymouth, that in April there is a fish much like a herring that comes up into the small brooks to spawn, and where the water is not knee-deep, they will press up through your hands, yea, though you beat at them with cudgels, and in such abundance as is incredible, which they take with that facility, they manure their land with them when they have occasion; after those the cod also presseth in such plenty, even into the very harbours, they have caught some in their arms, and hook them so fast, three men oft loadeth a boat of two tons in two hours, where before they used most to fish in deep water.

The present State of New Plymouth.

AT New Plymouth there is about one hundred and eighty persons, some cattle and goats, but many swine and poultry, thirty-two dwelling-houses, whereof seven were burnt the last winter, and the value of five hundred pounds in other goods; the town is impaled about half a mile compass. In the town upon a high mount they have a fort well built with wood, loam, and stone, where is planted their ordnance; also a fair watch tower, partly framed for the sentinel: the place, it seems, is healthful, for in these last three years, notwithstanding their great want of most necessities, there hath not one died of the first planters; they have made a salt-work, and with that salt preserve the fish they take, and this year hath freighted a ship of one hundred and eighty tons. The governor is one Mr. William Bradford; their captain, Miles Standish, a bred soldier, in Holland; the chief men for their assistance is Mr. Isaac Alderton, and divers others, as occasion serveth; their preachers are Mr. William Brewster and Mr. John Layford.

The most of them live together as one family or household, yet every man followeth his trade and profession both by sea and land, and all for a general stock, out of which they have all their maintenance, until there be a dividend betwixt the planters and the adventurers. Those planters are not servants to the adventurers here, but have only councils of directions from them, but no injunctions or command, and all the masters of families are partners in land or whatsoever, setting their labours against the stock, till certain years be expired for the division: they have young men and boys for their apprentices and servants, and some of them special families, as ship-carpenters, salt-makers, fish-masters, yet as servants upon great wages. The adventurers which raised the stock to begin and supply this plantation were about seventy, some gentlemen, some merchants, some handicrafts men, some adventuring great sums, some small, as their estates and affection served. The general stock already employed is about seven thousand pounds, by reason of which charge and many crosses, many of them would adventure no more, but others, that know so great a design cannot be effected without both charge, loss and crosses, are resolved to go forward with it to their powers, which deserve no small commendations and encouragement. These dwell most about London; they are not a corporation, but knit together by a voluntary combination in a society without constraint or penalty, aiming to do good and to plant religion; they have a president and treasurer, every year newly chosen by the most voices, who ordereth the affairs of their courts and meetings, and with the assent of the most of them, undertaketh all ordinary businesses, but in more weighty affairs, the assent

assent of the whole company is required. There hath been fishing this year upon the coast about fifty English ships: and by Cape Anne there is a plantation a beginning by the Dorchester men, which they hold of those of New Plymouth, who also by them have set up a fishing work; some talk there is some other pretended plantations, all whose good proceedings the eternal God protect and preserve. And these have been the true proceedings and accidents in those plantations.

Now to make a particular relation of all the acts and orders in the courts belonging unto them, of the annihilating old patents and procuring new, with the charge, pains, and arguments, the reasons of such changes, all the treaties, consultations, orations, and dissensions about the sharing and dividing those large territories, confirming of counsellors, electing all sorts of officers, directions, letters of advice, and their answers, disputations about the magazines and impositions, suiters for patents, positions for freedoms, and confirmations with complaints of injuries here, and also the mutinies, examinations, arraignments, executions, and the cause of the so often revolt of the savages at large, as many would have had, and it may be, some do expect it would make more quarrels than any of them would willingly answer, and such a volume as would tire any wise man but to read the contents; for my own part, I rather fear the impartial reader will think this rather more tedious than necessary: but he that would be a practitioner in those affairs, I hope will allow them not only needful but expedient: but however, if you please to bear with those errors I have committed, if God please I live, my care and pains shall endeavour to be thankful; if I die, accept my good will: if any desire to be further satisfied, what defect is found in this, they shall find supplied in me, that thus freely have thrown myself with my mite into the treasury of my country's good, not doubting but God will stir up some noble spirits to consider and examine if worthy Columbus could give the Spaniards any such certainties for his design, when Queen Isabel of Spain, set him forth with fifteen sail, and though I promise no mines of gold, yet the warlike Hollanders let us imitate but not hate, whose wealth and strength are good testimonies of their treasury gotten by fishing; and New England hath yielded already by general computation one hundred thousand pounds at the least. Therefore honourable and worthy countrymen, let not the meanness of the word *fish* distaste you, for it will afford as good gold as the mines of Guiana or Potosi, with less hazard and charge, and more certainty and facility.

J. S.

TRAVELS IN CANADA;

BY THE BARON LAHONTAN.*

TO HIS GRACE WILLIAM DUKE OF DEVONSHIRE,

Lord Steward of Her Majesty's Household, Lord Lieutenant of the County of Derby, Chief Justice in Eyre of all Her Majesty's Forests, Chaces, Parks, &c. Trent-North; one of the Lords of Her Majesty's Most Honourable Privy Council, and Knight of the Most Noble Order of the Garter.

MY LORD,

SINCE I had the honour to present the King of Denmark with the first part of this book, I presume to make a present of the latter to Your Grace. In making the first dedication, I had no other inducement, than a due regard to the benefits I receiv'd from His Majesty's favour; and the same motive with reference to Your Grace, has prompted me to make this acknowledgment of the undeserved favours you kindly vouchsafed me.

I did not dare to launch out into the praise of His Danish Majesty, who has a just title to all sorts of encomiums; by reason that the little French I had has been forgot among a sort of people, that take panegyrics to be affronts. 'Tis with the same view, my Lord, that I decline the pleasure of publishing those distinguishing qualities, that place Your Lordship at the head of the most accomplished Grandees of the world, and the most zealous patriots of their country.

I am, with all gratitude and veneration,

My Lord,

Your Grace's most humble, and most obedient servant,

LAHONTAN.

THE PREFACE.

HAVING flattered myself with the vain hopes of retrieving the King of France's favour, before the declaration of this war, I was so far from thinking to put these letters and memoirs to the press, that I designed to have committed 'em to the flames, if that Monarch had done me the honour of reinstating me in my former places, with the good leave of Messrs. de Pontchartrain†, the father and the son. 'Twas with that

* 2d Edition, London 1735, 2 vols. 8vo.

† The one Chancellor of France, and the other Secretary of State; both of them vastly rich.

view that I neglected to put 'em in such a dress as might now be wished for, for the satisfaction of the reader that gives himself the trouble to peruse 'em.

Between the fifteenth and sixteenth year of my age I went to Canada, and there took care to keep up a constant correspondence by letters with an old relation, who had required of me a narrative of the occurrences of that country, upon the account of the yearly assistance he gave me. 'Tis these very letters that make the greatest part of the first volume. They contain an account of all that pass'd between the English, the French, the Iroquese, and the other savage nations, from the year 1683 to 1694. Together with a great many curious remarks, that may be of use to those who have any knowledge of the English or French colonies.

The whole is writ with a great deal of fidelity ; for I represent things just as they are. I neither flatter nor spare any person whatsoever ; I attribute to the Iroquese*, the glory they have purchased on several occasions, though at the same time I hate that rascally people, as much as horns and law-suits. Notwithstanding the veneration I have for the clergy, I impute to them all the mischief the Iroquese have done to the French colonies, in the course of a war that had never been undertaken, if it had not been for the councils of these pious churchmen.

The reader is desired to take notice that the towns of New York are known to the French by their old names only, and for that reason I was oblig'd to make use of the same in my letters, as well as my maps. They give the name of New York to all that country, that reaches from the source of its river to the mouth, that is, to the island, upon which there stands a city call'd in the time of the Dutch, Manathe, and now by the English, New York. In like manner the plantation of Albany, that lies towards the head of the river, is call'd by the French, Orange.

Farther ; I would not have the reader to take it amiss, that the thoughts of the savages are set forth in an European dress. The occasion of that choice proceeded from the relation I corresponded with ; for that honest gentleman ridiculed the metaphorical harangue of the Grangula† ; and intreated me not to make a literal translation of a language that was so stuffed with fictions and savage hyperboles. It is for this reason that all the discourses and arguments of those nations are here accommodated to the European style and way of speaking ; for having complied with my friend's request, I contented myself in keeping only a copy of the letters I writ to him, during my pilgrimage in the country of these naked philosophers.

It will not be improper to acquaint the reader, by the bye, that those who know my faults, do as little justice to these people, as they do to me, in alleging I am a savage myself, and that *that* makes me speak so favourably of my fellow-savages. These observers do me a great deal of honour, as long as they do not explain themselves, so as to make me directly of the same character with that which is tacked to the word savage by the Europeans in their way of thinking : for in saying only that I am of the same temper with the savages, they give me, without design, the character of the honestest man in the world. It is an uncontested truth, that the nations which are not debauched by the neighbourhood of the Europeans, are strangers to the measures of *meum* and *tuum*, and to all laws, judges, and priests. This cannot be called in question, since all travellers that visit those countries, vouch for its truth ; and a great many of different professions have given the world repeated assurances that it is so. Now this being granted, we ought not to scruple to believe, that these are such wise

* Called by the English in New York, Mahak.

† See Letter 7th.

and reasonable people. I take it, a man must be quite blind who does not see that the property of goods (I do not speak of the ingrossing of women) is the only source of all the disorders that perplex the European societies. Upon that consideration it will be easy to perceive, that I have not spoke wide in describing that wisdom and acuteness which shines through the words and actions of these poor Americans. If all the world had access to the books of voyages that are found in some well-stocked libraries, they would find in above a hundred descriptions of Canada, an infinity of discourses and arguments offered by the savages, which are incomparably stronger, and more nervous than those I have inserted in my memoirs.

As for such as doubt of the instinct and wonderful capacity of beavers, they need only to cast their eyes upon the great map of America, drawn by the Sieur de Fer, and engraved at Paris in the year 1698; where they will meet with several surprizing things relating to these animals.

While my book was printing in Holland, I was in England; and as soon as it appeared, several English gentlemen of distinguished merit, who understand the French as well as their mother tongue, gave me to know, that they would be glad to see a more ample relation of the manners and customs of the people of that continent, whom we call by the name of savages. This obliged me to communicate to these gentlemen the substance of the several conferences I had in that country with a certain Huron, whom the French call Rat. While I stayed at that American's village, I employed my time very agreeably in making a careful collection of all his arguments and opinions; and as soon as I returned from my voyage upon the lakes of Canada, I shewed my manuscript to Count Frontenac, who was so pleased with it, that he took the pains to assist me in digesting the dialogues, and bringing them into the order they now appear in: for, before that, they were abrupt conferences without connexion. Upon the solicitation of these English gentlemen, I have put these dialogues into the hands of the person who translated my letters and memoirs: and if it had not been for their pressing instances, they had never seen the light; for there are but few in the world that will judge impartially, and without prepossession of some things contained in them.

I have likewise entrusted the same translator with some remarks that I made in Portugal and Denmark, when I fled thither from Newfoundland. There the reader will meet with a description of Lisbon and Copenhagen, and of the capital city of Arragon.

To the translation of my first volume, I have added an exact map of Newfoundland, which was not in the original. I have likewise corrected almost all the cuts of the Holland impression, for the Dutch gravers had murdered them, by not understanding their explications, which were all in French. They have engraved women for men, and men for women; naked persons for those that are clothed, and *à contra*. As for the maps, the reader will find them very exact; and I have taken care to have the tracts of my voyages more nicely delineated than in the original.

I understand by letters from Paris, that the two Messieurs de Pontchartrain endeavour by all means to be revenged upon me for the affront they say I gave them in publishing some trifling stories in my book, that ought to have been concealed. I am likewise informed, that I have reason to be apprehensive of the resentment of several ecclesiastics, who pretend I have insulted God in censuring their conduct. But since I expected nothing less than the furious resentment both of the one and the other, when I put this book to the press; I had time enough to arm myself from top to toe, in order to make head

head against them. It is my comfort, that I have writ nothing but what I make good by authentic proofs; besides, that I could not have said less of them than I have done; for if I had not tied myself up to the direct thread of my discourse, I could have made digressions, in which the conduct both of the one and the other would have appeared to be prejudicial to the repose of the society, and the public good. I had provocation enough to have treated them in that manner; but my letters being addressed to an old bigotted relation of mine, who fed upon devotion, and dreaded the influence of the court; he still beseeched me to write nothing to him that might disoblige the clergy or the courtiers, for fear of the intercepting of my letters. However, I have advice from Paris, that some pedants are set at work to lash me in writing; and so I must prepare to stand the brunt of a shower of affronts, that will be poured upon me in a few days. But it is no matter; I am so good a conjurer, that I can ward off any storm from the side of Paris. I laugh at their threats; and since I cannot make use of my sword, I'll wage war with my pen.

This I only mention, by the by, in this my Preface to the Reader, whom I pray the Heavens to crown with prosperity, in preserving him from having any business to adjust with most of the ministers of state, and priests; for let them be never so faulty, they'll still be said to be in the right, till such time as anarchy be introduced amongst us, as well as the Americans, among whom the sorryest fellow thinks himself a better man than a Chancellor of France. These people are happy in being screen'd from the tricks and shifts of ministers, who are always masters wherever they come. I envy the state of a poor savage, who tramples upon laws, and pays homage to no sceptre. I wish I could spend the rest of my life in his hut, and so be no longer exposed to the chagrin of bending the knee to a set of men that sacrifice the public good to their private interest, and are born to plague honest men. The two ministers of state I have to do with, have been solicited in vain, by the Dukes of Lude, Cardinal Bouillon, Count Guiscard, Mr. De Quiros, and Count D'Avaux: nothing could prevail, though all that is laid to my charge consists only in not bearing the affronts of a governor, whom they protect; at a time when a hundred other officers who live under the imputation of crimes, infinitely greater than mine, are excused for three months absence from court. Now the reason is, that they give less quarter to those who have the misfortune to displease the two Messieurs De Ponchartrain, than to such as act contrary to the King's orders.

But after all my misfortunes, I have this to solace me, that I enjoy in England a sort of liberty that is not met with elsewhere: for one may justly say, that of all the countries inhabited by civilized people, this alone affords the greatest perfection of liberty; nay, I do not except the liberty of the mind, for I am convinced that the English maintain it with a great deal of tenderness: so true it is, that all degrees of slavery are abhorred by this people, who shew their wisdom in the precautions they take to prevent their sinking into a fatal servitude.

LETTER I.

Dated at the Port of Quebec, Nov. 8, 1683.

Containing a Description of the Passage from France to Canada, with some Remarks upon the Coasts, Channels, &c., and the Variation of the Needle.

SIR,

I AM surprized to find that a voyage to the New World is so formidable to those who are obliged to undertake it; for I solemnly protest, that it is far from being what the world commonly takes it for. It is true the passage is in some measure long, but then the hopes of viewing an unknown country, atones for the tediousness of the voyage. When we broke ground from Rochelle, I acquainted you with the reasons that moved Mr. Le Fevre de la Barre, governor-general of Canada, to send the Sieur Mahu, a Canadese, to France; and at the same time gave you to know, that he had resolved upon the utter destruction of the Iroquese, who are a very warlike and savage people. These barbarians befriend the English, upon the account of the succours they receive from them; but they are enemies to us, upon the apprehension of being destroyed by us some time or other. The General I spoke of but now, expected that the King would send him seven or eight hundred men; but when we set out from Rochelle, the season was so far advanced, that our three companies of marines were reckoned a sufficient venture.

I met with nothing in our passage that was disagreeable, abating for a storm that alarmed us for some days, upon the precipice of the bank of Newfoundland, where the waves swell prodigiously, even when the winds are low. In that storm our frigate received some rude shocks from the sea; but in regard that such accidents are usual in that voyage, they made no impression upon the old seasoned sailors. As for my part, I could not pretend to that pitch of indifference, for having never made such a voyage before, I was so alarmed in seeing the waves mount up to the clouds, that I made more vows to Neptune than the brave Idomenæus did in his return from the wars of Troy. After we made the bank, the waves sunk, and the wind dwindled, and the sea became so smooth and easy, that we could not work our ship. You can scarce imagine what quantities of cod-fish were caught there by our seamen in the space of a quarter of an hour, for though we had thirty-two fathom water, yet the hook was no sooner at the bottom than the fish was caught, so that they had nothing to do but to throw in and take up without interruption: but after all, such is the misfortune of this fishery, that it does not succeed but upon certain banks, which are commonly past over without stopping. However, as we were plentifully entertained at the cost of these fishes, so such of them as continued in the sea made sufficient reprisals upon the corpse of a captain and of several soldiers, who died of the scurvy, and were thrown overboard three or four days after.

In the meantime the wind veering to the west-north-west, we were obliged to lay by for five or six days; but after that it chopped to the north, and so we happily made Cape Race, though indeed our pilots were at a loss to know where we were, by reason that they could not take the latitude for ten or twelve days before. You may easily imagine that it was with great joy that we heard one of our sailors call from the top-mast, Land, land, just as St. Paul did when he approached to Malta, $\Gamma\eta\nu\ \delta\rho\omega$, $\Gamma\eta\nu\ \delta\rho\omega$: for you must know that when the pilots reckon they approach to land, they

use the precaution of sending up sailors to the top-mast, in order to some discovery, and these sailors are relieved every two hours till night comes, at which time they furl their sails if the land is not yet descried, so that in the night-time they scarce make any way. From this it appears how important it is to know the coast, before you approach to it; nay, the passengers put such a value upon the discovery, that they present the first discoverer with some pistoles. In the meantime you'll be pleased to observe, that the needle of the compass, which naturally points to the north, turns upon the bank of Newfoundland, 23° towards the north-west, that is, it points there a degree nearer to the west than north-north-west. This remark we made by our compass of variation.

We descried the cape about noon, and in order to confirm the discovery, stood in upon it with all sails aloft. At last, being assured that it was the promontory we looked for, an universal joy was spread throughout the ship, and the fate of the wretches that we had thrown overboard was quite forgot. Then the sailors set about the christening of those who had never made the voyage before; and indeed they had done it sooner, if it had not been for the death of our above-mentioned companions. The christening I speak of, is an impertinent ceremony, practised by seafaring men, whose humours are as strange and extravagant as the element itself, upon which they foolishly trust themselves. By virtue of a custom of old standing, they profane the sacrament of baptism in an unaccountable manner. Upon that occasion the old sailors being blackened all over, and disguised with rags and ropes, force the greener sort that have never passed some certain degrees of latitude before, to fall down on their knees, and to swear upon a book of sea-charts, that upon all occasions they will practise upon others, the same ceremony that is then made use of towards them. After the administering of this ridiculous oath, they throw fifty buckets full of water upon their head, belly, and thighs, and indeed, all over their bodies, without any regard to times or seasons. This piece of folly is chiefly practised under the equator, under the tropics, under the polar circles, upon the bank of Newfoundland, and in the Streights of Gibraltar, the Sund, and the Dardanelles. As for persons of note or character, they are exempted from the ceremony, at the expence of five or six bottles of brandy for the ship's crew.

Three or four days after the performance of this solemnity, we discovered Cape Raye, and so made up to St. Lawrence Bay, in the mouth of which we were becalmed for a little while, and during that calm we had a clearer and pleasanter day than any we had seen in the passage. It looked as if that day had been vouchsafed us by way of recompence for the rains, fogs, and high winds that we encountered by the way. There we saw an engagement between a whale and a sword-fish*, at the distance of a gun-shot from our frigate. We were perfectly charmed when we saw the sword-fish jump out of the water in order to dart its spear into the body of the whale, when obliged to take breath. This entertaining show lasted at least two hours, sometimes to the starboard and sometimes to the larboard of the ship. The sailors, among whom superstition prevails as much as among the Egyptians, took this for a presage of some mighty storm; but the prophecy ended in two or three days of contrary winds, during which time we traversed between the island of Newfoundland and that of Cape Breton. Two days after we came in sight of the island of Fowls, by the help of a north-east wind, which drove us from the mouth of St. Lawrence Bay to the Isle of Anticosti,

* *Espadon*, a fish between ten and fifteen feet long, being four feet in circumference, and having in its snout a sort of saw which is four feet long, four inches broad, and six lines thick.

upon the bank of which we thought to have been cast away, by nearing it too much. In the mouth of that river we fell into a second calm, which was followed by a contrary wind, that obliged us to lie by for some days. At last we made Tadoussac, by gradual approaches, and there came to an anchor.

This river is four leagues broad where we then rode, and twenty-two at its mouth, but it contracts itself gradually as it approaches to its source. Two days after the wind standing east, we weighed anchor, and being favoured by the tide, got safe through the channel of the Red Island, in which the currents are apt to turn a vessel on one side, as well as at the island of Coudres, which lies some leagues higher. But upon the coast of the last island, we had certainly struck upon the rocks if we had not dropped an anchor. Had the ship been cast away at that place we might easily have saved ourselves: but it proved so, that we were more afraid than hurt. Next morning we weighed with a fresh gale from the east, and the next day after came to an anchor over against Cape Tourmente, where we had not above two leagues over, though at the same time it is a dangerous place to those who are unacquainted with the channel. From thence we had but seven leagues sailing to the port of Quebec, where we now ride at anchor. In our passage from the Red Island to this place, we saw such floats of ice, and so much snow upon the land, that we were upon the point of turning back for France, though we were not then above thirty leagues off our desired port. We were afraid of being stopped by the ice, and so lost; but thank God we escaped.

We have received advice, that the governor has marked our quarters for our troops in some villages or cantons adjacent to this city; so that I am obliged to prepare to go ashore, and therefore must make an end of this letter. I cannot as yet give you any account of the country, excepting that it is already mortally cold. As to the river, I mean to give you a more ample description of it, when I come to know it better. We are informed that Mr. De la Salle is just returned from his travels, which he undertook upon the discovery of a great river that falls into the Gulf of Mexico, and that he embarks to-morrow for France. He is perfectly well acquainted with Canada, and for that reason you ought to visit him if you go to Paris this winter. I am,

Sir, yours, &c.

LETTER II.

Dated at the Canton of Beauprè, May 2, 1684.

Containing a Description of the Plantations of Canada, and the Manner in which they were first formed: as also an Account of the Transportation of Whores from France to that Country; together with a View of its Climate and Soil.

SIR,

AS soon as we landed last year, Mr. De la Barre lodged our three companies in some cantons or quarters in the neighbourhood of Quebec. The planters call these places Cotes, which in France signifies no more than the sea-coast; though in this country, where the names of town and village are unknown, that word is made use of to express a feignory or manor, the houses of which lie at the distance of two or three hundred paces one from another, and are seated on the brink of the river of St. Lawrence. In earnest, Sir, the boors of those manors live with more ease and conveniency than an infinity of the gentlemen in France. I am out indeed in calling them boors, for

that name is as little known here as in Spain; whether it be that they pay no taxes, and enjoy the liberty of hunting and fishing, or that the easiness of their life, puts them upon a level with the nobility. The poorest of them have for arpents * of ground in front, and thirty or forty in depth: the whole country being a continued forest of lofty trees, the stumps of which must be grubbed up before they can make use of a plough. It is true, this is a troublesome and chargeable task at first; but in a short time after they make up their losses; for when the virgin ground is capable of receiving seed, it yields an increase to the rate of an hundred-fold. Corn is there sown in May, and reaped about the middle of September. Instead of threshing the sheafs in the field, they convey them to barns, where they lie till the coldest season of the winter, at which time the grain is more easily disengaged from the ear. In this country they likewise sow pease, which are much esteemed in France. All sorts of grain are very cheap here, as well as butchers meat and fowl. The price of wood is almost nothing, in comparison with the charge of its carriage, which after all is very inconsiderable.

Most of the inhabitants are a free sort of people that removed hither from France, and brought with them but little money to set up withal: the rest are those who were soldiers about thirty or forty years ago, at which time the regiment of Carignan was broke, and they exchanged a military post for the trade of agriculture. Neither the one nor the other paid any thing for the grounds they possess, no more than the officers of these troops, who marked out to themselves certain portions of unmanured and woody lands; for this vast continent is nothing else than one continued forest. The governors-general allowed the officers three or four leagues of ground in front, with as much depth as they pleased; and at the same time the officers gave the soldiers as much ground as they pleased, upon the condition of the payment of a crown per arpent, by way of fief.

After the reform of these troops, several ships were sent hither from France, with a cargo of women of an ordinary reputation, under the direction of some old stale nuns, who ranged them in three classes. The vestal virgins were heaped up, (if I may so speak) one above another, in three different apartments, where the bridegrooms singled out their brides, just as a butcher does an ewe from amongst a flock of sheep. In these three seraglios, there was such variety and change of diet as could satisfy the most whimsical appetites; for here was some big, some little, some fair, some brown, some fat and some meagre; in fine, there was such accommodation that every one might be fitted to his mind: and indeed the market had such a run, that in fifteen days time, they were all disposed of. I am told, that the fattest went off best, upon the apprehension that these being less active, would keep truer to their engagements, and hold out better against the nipping cold of the winter: but after all, a great many of the head-adventurers found themselves mistaken in their measures. However, let that be as it will, it affords a very curious remark, namely, that in some parts of the world, to which the vicious European women are transported, the mob of those countries does seriously believe that their fins are so defaced by the ridiculous christening I took notice of before, that they are looked upon ever after as ladies of virtue, of honour, and of untarnished conduct of life. The sparks that wanted to be married made their addresses to the above mentioned governesses, to whom they were obliged to give an account of their goods and estates before they were allowed to make their choice in the three seraglios. After the choice was determined, the marriage was concluded upon the spot, in the

* An arpent is a spot of ground containing one hundred perches square, each of which is eighteen feet long.

presence of a priest, and a public notary; and the next day the governor-general bestowed upon the married couple a bull, a cow, a hog, a sow, a cock, a hen, two barrels of salt meat, and eleven crowns; together with a certain coat of arms called by the Greeks **κέραια*. The officers having a nicer taste than the soldiers, made their application to the daughters of the ancient gentlemen of the country, or those of the richer sort of inhabitants; for you know, that Canada has been possessed by the French above an hundred years.

In this country every one lives in a good and a well furnished house; and most of the houses are of wood, and two stories high. Their chimnies are very large, by reason of the prodigious fires they make to guard themselves from the cold, which is there beyond all measure, from the month of December to that of April. During that space of time, the river is always frozen over, notwithstanding the flowing and ebbing of the sea; and the snow upon the ground is three or four feet deep; which is very strange in a country that lies in the latitude of 47° and some odd minutes. Most people impute the extraordinary snow to the number of mountains with which this vast continent is replenished. Whatever is in that matter, I must take notice of one thing, that seems very strange, namely, that the summer days are longer here than at Paris. The weather is then so clear and serene, that in three weeks time you shall not see a cloud in the horizon. I hope to go to Quebec with the first opportunity; for I have orders to be in a readiness to embark within fifteen days for Montreal, which is the city of this country, that lies farthest up towards the head of the river. I am,

Sir, yours, &c.

LETTER III.

Dated at Quebec, May 15, 1684.

Containing an ample Description of the City of Quebec, and of the Island of Orleans.

SIR,

BEFORE I set out for Montreal, I had the curiosity to view the island of Orleans, which is seven leagues in length, and three in breadth: it extends from over against Cape Tourmente, to within a league and a half of Quebec, at which place the river divides itself into two branches. The ships sail through the South Channel; for the North Channel is so foul with shelves and rocks, that the small boats can only pass that way. The island belongs to a General Farmer of France, who would make out of it a thousand crowns of yearly rent, if himself had the management of it. It is surrounded with plantations that produce all sorts of grain.

Quebec is the metropolitan of New France, being almost a league in circumference; it lies in the latitude of $47^{\circ} 12'$. The longitude of this place is uncertain, as well as that of several other countries, with the leave of the geographers, that reckon you up one thousand two hundred leagues from Rochelle to Quebec, without taking the pains to measure the course: however, I am sure that it lies but at too great a distance from France for the ships that are bound hither; for their passage commonly lasts for two months and a half, whereas the homeward-bound ships may in thirty or forty days sailing easily make the Belle Isle, which is the surest and most usual land that a ship makes upon a long voyage. The reason of this difference is, that the winds are easterly for one hundred days of the year, and westerly for two hundred and sixty.

* Horns.

Quebec is divided into the upper and lower city. The merchants live in the latter, for the conveniency of the harbour: upon which they have built very fine houses, three story high, of a sort of stone that is as hard as marble. The upper or high city is full as populous and as well adorned as the lower. Both cities are commanded by a castle, that stands upon the highest ground. This castle is the residence of the governors, and affords them not only convenient apartments, but the noblest and most extensive prospect in the world. Quebec wants two essential things, namely, a key and fortifications: though both the one and the other might be easily made, considering the conveniency of stones lying upon the spot. It is encompassed with several springs, of the best fresh water in the world, which the inhabitants draw out of wells; for they are so ignorant of the hydrostatics, that not one of them knows how to convey the water to certain basins, in order to raise either flat or spouting fountains. Those who live on the river-side, in the lower city, are not half so much pinched with the cold as the inhabitants of the upper; besides that the former have a peculiar conveniency of transporting in boats, corn, wood, and other necessaries to the very doors of their houses: but as the latter are more exposed to the injuries of the cold, so they enjoy the benefit and pleasure of a cooler summer. The way which leads from the one city to the other is pretty broad, and adorned with houses on each side; only it is a little steep. Quebec stands upon a very uneven ground; and its houses are not uniform. The intendant lives in a bottom, at some small distance from the side of a little river, which, by joining the river of St. Lawrence, coops up the city in a right angle. His house is the palace in which the sovereign council assembles four times a week; and on one side of which we see great magazines of ammunition and provisions. There are six churches in the high city: the cathedral consists of a bishop, and twelve prebendaries, who live in common in the chapter-house, the magnificence and architecture of which is truly wonderful. These poor priests are a very good sort of people; they content themselves with bare necessities, and meddle with nothing but the affairs of the church, where the service is performed after the Roman way. The second church is that of the Jesuits, which stands in the center of the city; and is a fair, stately, and well lighted edifice. The great altar of the Jesuits' church is adorned with four great cylindrical columns of one stone; the stone being a sort of Canada porphyry, and black as jet, without either spots or veins. These fathers have very convenient and large apartments, beautified with pleasant gardens, and several rows of trees, which are so thick and bushy, that in summer one might take their walks for an ice-house: and indeed we may say without stretching, that there is ice not far from them, for the good fathers are never without a reserve in two or three places, for the cooling of their drink. Their college is so small, that at the best they have scarce fifty scholars at a time. The third church is that of the Recollects, who, through the intercession of Count Frontenac, obtained leave of the King to build a little chapel, (which I call a church) notwithstanding the remonstrances of Mr. De Laval, our bishop, who, in concert with the Jesuits, used his utmost efforts for ten years together to hinder it. Before the building of this chapel, they lived in a little hospital that the bishop had ordered to be built for them; and some of them continue there still. The fourth church is that of the Urselines, which has been burned down two or three times, and still rebuilt to advantage. The fifth is that of the Hospital-order, who take a particular care of the sick, though themselves are poor, and but ill lodged.

The sovereign council is held at Quebec. It consists of twelve counsellors of *Capaly de Spada* *, who are the supreme judicature, and decide all causes without appeal.

* See the explication table.

The intendant claims a right of being president to the council ; but in the justice-hall the governor-general places himself so as to face him, the judges being set on both sides of them, so that one would think they are both presidents. While Monsieur de Frontenac was in Canada, he laughed at the pretended precedence of the intendants ; nay, he used the members of that assembly as roughly as Cromwell did the parliament of England. At this court every one pleads his own cause, for solicitors or barristers never appear there ; by which means it comes to pass, that law-suits are quickly brought to a period, without demanding court-fees or any other charges from the contending parties. The judges, who have but four hundred livres a year from the King, have a dispensation of not wearing the robe and the cap. Besides this tribunal, we have in this country a lieutenant-general, both civil and military, an attorney-general, the great provost, and a chief-justice in eyre.

The way of travelling in the winter, whether in town or country, is that of sledges drawn by horses ; who are so insensible of the cold, that I have seen fifty or sixty of them in January and February stand in the snow up to their breast, in the midst of a wood, without ever offering to go near their owner's house. In the winter-time they travel from Quebec to Monreal upon the ice, the river being then frozen over ; and upon that occasion these sledges will run you fifteen leagues a day. Others have their sledges drawn by two mastiff dogs, but then they are longer by the way. As for their way of travelling in summer, I shall transmit you an account of it, when I come to be better informed. I am told that the people of this country will go a thousand leagues in canoes of bark ; a description of which you may expect, as soon as I have made use of them. The easterly winds prevail here commonly in the spring and autumn ; and the westerly have the ascendant in winter and summer. Adieu, Sir : I must now make an end of my letter, for my matter begins to run short. All I can say is, that as soon as I am better instructed in what relates to the commerce, and the civil and ecclesiastical government of the country, I will transmit you such exact memoirs of the same, as shall give you full satisfaction. These you may expect with the first opportunity ; for in all appearance our troops will return after the conclusion of the campaign that we are now going to make in the country of the Iroquese, under the command of Monsieur de la Barre. In seven or eight days time I mean to embark for Monreal ; and in the meantime am going to make a progress to the villages to the Scilleri, of Saut de la Chaudiere, and of Lorete, which are inhabited by the Abenakis and the Hurons. These places are not above three or four leagues off ; so that I may return with ease next week. As for the manners of the people, I cannot pretend to describe them so soon ; for a just observation and knowledge of these things cannot be compassed without time. I have been this winter at hunting with thirty or forty young Algonkins, who were well-made clever fellows. My design in accompanying them was to learn their language, which is mightily esteemed in this country ; for all the other nations for a thousand leagues round (excepting the Iroquese and the Hurons) understand it perfectly well ; nay, all their respective tongues come as near to this, as the Portuguese does to the Spanish. I have already made myself master of some words with a great deal of facility ; and they being mightily pleased in seeing a stranger study their tongue, take all imaginable pains to instruct me.

I am, Sir, yours, &c.

LETTER

LETTER IV.

Dated at Monreal, June 14, 1684.

Containing a brief Description of the Habitations of the Savages in the Neighbourhood of Quebec: of the River of Saint Lawrence, &c. as far up as Monreal: of a curious way of fishing Eels, and of the Cities of Fois Rivières and Monreal: together with an Account of the Conduct of the Forest Rangers or Pedlars.*

SIR,

BEFORE my departure from Quebec, I visited the adjacent villages inhabited by the savages. The village of Lorete is peopled by two hundred families of Hurons, who were converted to Christianity by the Jesuits, though with a great deal of reluctance. The villages of Sillery and of Saut de la Chaudière, are composed of three hundred families of Abenakis, who are likewise Christians, and among whom the Jesuits have settled missionaries. I returned to Quebec time enough, and embarked under the conduct of a master, that would rather have had a lading of goods than of soldiers. The north-east winds wafted us in five or six days to Trois Rivières, which is the name of a small city, seated at the distance of thirty leagues from hence. That city derives its name from three rivers, that spring from one channel, and after continuing their division for some space, re-unite into a joint stream, that falls into the river of Saint Lawrence, about half a quarter of a league below the town. Had we failed all night the tides would have carried us thither in two days time; but in regard that the river is full of rocks and shelves, we durst not venture upon it in the dark; so we came to an anchor every night, which did not at all displease me; for in the course of thirty leagues (notwithstanding the darkness of the night) it gave me an opportunity of viewing an infinite number of habitations on each side of the river, which are not above a musket-shot distant one from another. The inhabitants that are settled between Quebec and fifteen leagues higher, diverted me very agreeably with the fishing of eels. At low water they stretch out hurdles to the lowest water-mark; and that space of ground being then dry by the retreat of the water, is covered over and shut up by the hurdles. Between the hurdles they place at certain distances instruments called ruches, from the resemblance they bear to a bee-hive; besides baskets and little nets belagged upon a pole, which they call bouteux and bouts de quievres. Then they let all stand in this fashion for three months in the spring, and two in the autumn. Now as often as the tide comes in, the eels looking out for shallow places, and making towards the shore, croud in among the hurdles, which hinder them afterwards to retire with the ebb-water; upon that they are forced to bury themselves in the above-mentioned engines, which are sometimes so overcrowded, that they break. When it is low water the inhabitants take out these eels, which are certainly the biggest and the longest in the world. They salt them up in barrels, where they will keep a whole year without spoiling: and, indeed, they give an admirable relish in all fauces; nay, there is nothing that the council of Quebec desires more, than that this fishery should be equally plentiful in all years.

Trois Rivières is a little paltry town, seated in the latitude of 46° ; it is not fortified neither with stone nor pales. The river to which it owes its name takes its rise an hundred leagues to the north-west, from the greatest ridge of mountains in the uni-

* Coureurs de Bois. See the explication table.

verse. The Algonkins, who are at present an erratic sort of savages, and, like the Arabs, have no settled abode; that people, I say, seldom straggle far from the banks of this river, upon which they have excellent beaver-hunting. In former times the Iroquese cut off three-fourths of that nation; but they have not dared to renew their incursions, since the French have peopled the countries that lie higher up upon the river of Saint Lawrence. I called *Trois Rivières* a little town, with reference to the paucity of the inhabitants; though at the same they are very rich, and live in stately houses. The King has made it the residence of a governor, who would die for hunger, if he did not trade with the natives for beavers, when his small allowance is out: besides, a man that would live there must be of the like temper with a dog, or at least he must take pleasure in scratching his skin, for the fleas are there more numerous than the grains of sand. I am informed, that the natives of this place make the best soldiers in the country.

Three leagues higher we entered St. Peter's Lake, which is six leagues long, and had difficulty enough in crossing it; for the frequent calms obliged us to cast anchor several times. It receives three or four rivers that abound with fish; upon the mouth of which I descried with my telescope very fine houses. Towards the evening we failed out of that lake with a fresh easterly gale; and though we hoisted up all our sails, the current run so strong against us, that it was three hours before we could make Sorel, which was two small leagues off. Sorel is a canton of four leagues in front, in the neighbourhood of which, a certain river conveys the waters of Champlain Lake to the river of St. Lawrence, after having formed a water-fall of two leagues at Chambli. Though we reckon but eight leagues from Sorel to Montreal, yet we spent three days in sailing between them, by reason partly of slack winds, and partly of the strength of the currents. In this course we saw nothing but islands; and both sides of the river all along, from Quebec to this place, are so replenished with inhabitants, that one may justly call them two continued villages of sixty leagues in length.

This place, which goes by the name of Villemarie, or Montreal, lies in the latitude of 45° and some minutes, being seated in an island of the same name, which is about five leagues broad, and fourteen leagues long. The directors of the seminary of Saint Sulpitius, at Paris, are the proprietors of the island, and have the nomination of a bailiff, and several other magistrates; nay, in former times, they had the privilege of nominating a governor. This little town lies all open without any fortification either of stone or wood: but its situation is so advantageous, notwithstanding that it stands upon an uneven and sandy ground, that it might easily be made an impregnable post. The river of Saint Lawrence, which runs just by the houses on one side of this town, is not navigable further, by reason of its rapidity; for about half a quarter of a league higher, it is full of rapid falls, eddies, &c. M. Perot, the governor of the town, who has but a thousand crowns a year salary, has made shift to get fifty thousand in a few years, by trading with the savages in skins and furs. The bailiff of the town gets but little by his place, no more than his officers; so that the merchants are the only persons that make money here; for the savages that frequent the great lakes of Canada come down hither almost every year with a prodigious quantity of beavers' skins, to be given in exchange for arms, kettles, axes, knives, and a thousand such things, upon which the merchants clear two hundred per cent. Commonly the governor-general comes hither about the time of their coming down, in order to share the profit, and receive presents from that people. The pedlars, called *Coueurs de Bois*, export from hence every year several canoes full of merchandize, which they dispose of
among



Drawn by A. de Humboldt.

Engraved by George Cooke.

Copper of Perotto.

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among all the savage nations of the continent, by way of exchange for beaver skins. Seven or eight days ago I saw twenty-five or thirty of these canoes return with heavy cargoes; each canoe was managed by two or three men, and carried twenty hundred weight, *i. e.* forty packs of beaver skins, which are worth a hundred crowns a-piece. These canoes had been a year and eighteen months out. You would be amazed if you saw how lewd these pedlars are when they return; how they feast and game, and how prodigal they are, not only in their cloaths, but upon women. Such of them as are married have the wisdom to retire to their own houses; but the bachelors act just as our East Indiamen and pirates are wont to do; for they lavish, eat, drink, and play all away, as long as the goods hold out; and when these are gone, they even sell their embroidery, their lace, and their cloaths. This done, they are forced to go upon a new voyage for subsistence.

The directors of the seminary of St. Sulpitius, take care to send missionaries hither from time to time, who live under the direction of a superior, that is very much respected in the country. They have apartments allotted for them in a stately, great, and pleasant house, built of freestone. This house is built after the model of that of St. Sulpice at Paris, and the altar stands by itself, just like that at Paris. Their seignories or cantons that lie on the south side of the island, produce a considerable revenue; for the plantations are good, and the inhabitants are rich in corn, cattle, fowl, and a thousand other commodities, for which they find a market in the city; but the north part of the island lies waste. These directors would never suffer the Jesuits or Recollects to display their banners here; though it is conjectured that at the long run they will be forced to consent to it. At the distance of a league from the town, I saw at the foot of a mountain, a plantation of Iroquese Christians, who are instructed by two priests of the order of Sulpitius; and I am informed of a larger and more populous plantation on the other side of the river, at the distance of two leagues from hence, which is taken care of by Father Bruyas the Jesuit. I hope to set out from hence, as soon as M. de la Barre receives advice from France; for he designs to leave Quebec upon the arrival of the first ship. I resolve to go to Fort Frontenac, upon the lake that goes by the same name. If I may credit those who have been formerly in action against the Iroquese, I shall be able upon my return from this campaign, to inform you of some things that will seem as strange to you, as they will be disagreeable to myself.

I am, Sir, yours, &c.

LETTER V.

Dated at Monreal, June 18, 1684.

In which is contained a short Account of the Iroquese, with a View of the War and Peace they made with the French, and of the Means by which it was brought about.

SIR,

I WROTE to you but four days ago, and did not think to have heard from you so soon; but this morning I met with a very agreeable surprisal, in receiving a packet addressed to me by your brother. You may be sure I was infinitely well pleased, in being given to understand what has passed in Europe since I left it. The knowledge of the affairs of Europe is comfortable to one that is doomed to another world, such as this is; and I cannot but acknowledge myself infinitely indebted to you, for the exactness

exactness of your intelligence. Inasmuch as you require of me an account of the Iroquese, and would have me to present you with a just view of their temper and government; I would willingly satisfy and oblige you in that or any other point: but in regard that I am obliged to set out for Fort Frontenac the day after to-morrow, I have not time to inform myself of things, or to consult those who have been in the country before: so that all I can do at present, is only to acquaint you with what I have learned this winter, from persons that have sojourned twenty years among them. As soon as I have an opportunity of enlarging my knowledge upon that head, by a more immediate conversation with themselves, you may assure yourself that I will impart it to you. In the mean time be pleased to accept of what follows.

These barbarians are drawn up in five cantons, not unlike those of the Swisses. Though these cantons are all of one nation, and united in one joint interest, yet they go by different names, viz. the Tsonontouans, the Goyogoans, the Onnotagues, the Onoyouts, and the Agnies. Their language is almost the same, and the five villages or plantations in which they live, lie at the distance of thirty leagues one from another, being all seated near the south side of the lake of Ontario, or of Frontenac. Every year the five cantons send deputies to assist at the Union feast, and to smook in the great calumet, or pipe, of the five nations. Each village or canton contains about fourteen thousand souls, i. e. fifteen hundred that bear arms, two thousand superannuated men, four thousand women, two thousand maids, and four thousand children: though indeed some will tell you, that each village has not above ten or eleven thousand souls. There has been an alliance of long standing between these nations and the English, and by trading in furs to New York they are supplied by the English with arms, ammunition, and all other necessaries at a cheaper rate than the French can afford them at. They have no other consideration for England or France, than what depends upon the occasion they have for the commodities of these two nations; though after all they give an over-purchase, for they pay for them four times more than they are worth. They laugh at the menaces of our kings and governors, for they have no notion of dependence, nay, the very word is to them insupportable. They look upon themselves as sovereigns, accountable to none but God alone, whom they call the Great Spirit. They waged war with us almost always, from the first settlement of our colonies in Canada, to the first years of the Count of Frontenac's government. Messieurs de Courfelles and de Traci, both of them governors-general, made head against the Agnies upon the Champlain Lake, in winter as well as in summer; but they could not boast of any great success. They only burnt their villages, and carried off some hundreds of their children, of whom the above-mentioned Iroquese Christians are sprung. It is true, they cut off ninety or an hundred warriors; but in compensation for that, several Canadians, and several soldiers of the regiment of Carignan, being unprovided against the unsufferable cold of the climate, lost their limbs, and even their life itself. Count Frontenac, who succeeded M. Courfelle, perceiving that the barbarians had the advantage of the Europeans, as to the waging of war in that country; upon this apprehension, I say, he declined such fruitless expeditions, which were very chargeable to the King, and used all his efforts to dispose the savages to a sincere and lasting peace. This judicious governor had three things in view: the first was to encourage the greatest part of the French inhabitants, who would have abdicated the colony, and returned to France, if the war had continued. His second topic was, that the conclusion of a peace would dispose an infinity of people to marry, and to grub up the trees, upon which the colony would be better peopled and enlarged. The third argument that dissuaded him from carrying on the war, was a design of pursuing the
discovery

discovery of the lakes, and of the savages that live upon their banks, in order to settle a commerce with them, and at the same time to engage them in our interests, by good alliances, in case of a rupture with the Iroquese. Upon the consideration of these reasons, he sent some Canadians by way of a formal embassy to the Iroquese villages, in order to acquaint them, that the King being informed that a groundless war was carried on against them, had sent him from France to make peace with them. At the same time the ambassadors had orders to stipulate all the advantages they could obtain with reference to the commerce. The Iroquese heard this proposal with a great deal of satisfaction; for Charles II. King of England, had ordered his governor in New York to represent to them, that if they continued to wage war with the French, they were ruined, and that they would find themselves crushed by the numerous forces that were ready to sail from France. In effect, they promised to the ambassadors that four hundred of their number should meet Count Frontenac, attended by an equal number of his men, at the place where Fort Frontenac now stands. Accordingly, some months after, both the one and the other met at the place appointed, and so a peace was concluded. M. de la Salle was very serviceable to this governor, in giving him good and seasonable advice, which I cannot now enter upon, being obliged to make some preparations for my voyage. When the campaign is over, you may expect to hear from me. In the mean time,

I am, Sir, yours, &c.

LETTER VI.

Dated at Monreal, June 20, 1684.

Being an ample Description of the Canoes made of Birch-Bark, in which the Canadians perform all their Voyages; with an Account of the Manner in which they are made and managed.

SIR,

I THOUGHT to have set out as this day; but in regard that our complement of great canoes is not yet brought up, our voyage is put off for two days. Having so much leisure time upon my hands, I have a mind to employ it in presenting you with a short view of these slender contrivances in which the Canadians perform all their voyages: and this will furnish you an idea of the voiture of this country. I saw but now above an hundred canoes, some great and some little; but considering that the former are only proper for martial expeditions, and long voyages, I shall confine my description to that sort. Even the great ones are of different sizes; for they run from ten to twenty-eight feet long. Indeed the least of all hold but two persons set upon their breech, as in a coffin, and are apt to overset, if the passengers move to one side or the other: but those of a larger size will easily afford stowage for fourteen persons; though they are commonly manned only with three men, when they are employed in transporting provisions and merchandize; and even then they will carry twenty hundred weight. The largest sort are safe and steady, when they are made of the bark of the birch-tree, which comes off with hot water in the winter time. The greatest trees afford the best barks for canoes; but oftentimes the bark of one tree is not sufficient. The bottom of the boat is all of one piece, to which the sides are so artfully sewed by the savages, that the whole boat appears as one continued bark. They are trimmed and strengthened with wicker wreaths, and ribs of cedar wood, which are almost as light as cork; the wreaths

are as thick as a crown-piece; but the bark has the thickness of two crowns, and the ribs are as thick as three. On the two sides of the boat there run from one end to the other two principal head-bars, in which the ends of the ribs are enchased, and in which the spars are made fast, that run across the boat and keep it compact. These boats have twenty inches in depth, that is from the upper edge to the platform of the ribs; their length extends to twenty-eight feet, and the width at the middle rib is computed to be four feet and a half. They are very convenient upon the account of their extreme lightness, and the drawing of very little water; but at the same time, their brittle and tender fabrick, is an argument of an equivalent inconveniency; for if they do but touch or grate upon stone or sand, the cracks of the bark fly open, upon which the water gets in, and spoils the provisions and merchandize: every day there is some new chink or seam to be gummed over. At night there are always unloaded, and carried on shore, where they are made fast with pegs, lest the wind should blow them away: for they are so light that two men carry them upon their shoulders with ease. This conveniency of lightness and easy carriage renders them very serviceable in the rivers of Canada, which are full of cataracts, water-falls, and currents: for in these rivers we are obliged either to transport them over-land where such obstructions happen, or else to tow them along where the current is not over rapid, and the shore is accessible. These boats are of no use for the navigation of lakes; for the waves would swallow them up, if they could not reach the shore when a wind arises. It is true the inhabitants venture in them for four or five leagues from one island to another; but then it is always in calm weather, and nothing is made use of but oars; for besides the risque of being over-set, the goods are in danger of being damaged by the water, especially the furs which are the most valuable part of the cargo. When the season serves, they carry little sails; but if the wind be but a little brisk, though they run right afore it, it is impossible to make any use of it without running the risk of shipwreck. If their course lies directly south, they cannot put up sail without the wind stands at one of the eight points, between north-west and north-east; and if a wind happens to spring any where else, (unless it comes from the land which they coast along) they are obliged to put into the shore with all possible expedition, and unload the boat out of hand till such time as a calm returns.

As for the working of these boats, the canoe-men ply sometimes on their knees, namely, when they run down the small water-falls; sometimes standing when they stem a current, by setting the boat along with poles, and sometimes sitting, viz. in smooth and stagnating water. The oars they make use of are made of maple-wood, (there is a rude print in the original.) The blade of the oar is twenty inches long, six inches broad, and four lines thick, the handle is about three foot long and as big as a pigeon's egg. When they have occasion to run up against rapid currents, they make use of poles made of pine-wood, and the setting of the boat along with these is what they call *piquer de fond*. The canoes have neither stern nor prow, for they run to a point at both ends, neither have they keels, nails, or pegs, in the whole structure. The steersman, or he who conns the boats, rows without interruption as well as the rest. The common purchase of such a boat is eighty crowns; but it does not last above five or six years.

This day I have received advice that M. de la Barre has raised the militia in the neighbourhood of Quebec, and that the governor of this island has received orders to have that of the adjacent cantons in readiness to march.



On the River St. Lawrence.



Engraved by George Cooke.

Characteristic Scenery of the Hudson River.

LETTER VII.

Dated at Monreal, Nov. 2, 1684.

Describing the Course of the River of St. Lawrence, from Monreal to the first great Lake of Canada; with the Water-falls, Cataracts, and Navigation of that River: as also Fort Frontenac, and the Advantages that accrue from it. Together with a circumstantial Account of the Expedition of M. de la Barre, the governor-general, against the Iroquese; the Speeches he made, the Replies he received, and the final Accommodation of the Difference.

SIR,

THANK God I have finished this campaign, and I am now returned in safety to this place. To present you with the history of our campaign, be pleased to know that in two or three days after the date of my last, I embarked on board of a canoe that was worked by three expert canoe-men. Every canoe contained two foldiers, and we all rowed up against the current of the river till we arrived at Saut de St. Louis, about three leagues above this town, which is a little water-fall, but so rapid that our watermen were forced to stand in the water up to their middle, in order to drag the canoes against the stream for half a quarter of a league. We re-embarked above this pass, and rowed about twelve leagues up the river, and through the lake of St. Louis, till we arrived at a place called the Cascades, where we were forced to turn out and carry our boats and baggage overland about half a quarter of a league. It is true, we might have towed our boats against the stream in this place with some labour, but there was a cataract a little above it, which they call le Cataracte du Trou. I had taken up a notion that the only difficulty of sailing up the river consisted in the trouble of land-carriage: but when I came to be a spectator of the matter, I found that the stemming of the currents whether in towing of the canoes, or in setting them along with poles was equally laborious. About five or six leagues higher we came to the water-falls called Sauts des Cedres, and du Buiffon, where we were forced to transport our boats five hundred paces overland. Some leagues above that we entered the lake of St. Francis, which is said to be twenty leagues in circumference, and having crossed it, met with as strong currents as before, particularly at a fall called Long Saut, where we had recourse to land-carriage for half a league. Then we were forced to drag up the boats against the rapid stream, and after a great deal of fatigue came at last to a pass called la Galette, from whence we had but twenty leagues sailing to Fort Frontenac. This pass was the last difficulty we had to surmount, for above it the water was as still as that of a pool, and then our watermen plied with their oars instead of poles.

The Maringouins, which we call Midgees, are unsufferably troublesome in all the countries of Canada. We were haunted with such clouds of them, that we thought to be eat up, and smoking being the only artifice that could keep them off, the remedy was worse than the disease: in the night-time the people shelter themselves from them in bowers or arbours, made after the following manner: they drive into the ground stakes or little branches of trees, at a certain distance one from another, so as to form a semicircular figure, in which they put a quilt and bed-cloaths, covering it above with a large sheet that falls down to the ground on all sides, and so hinders the insects to enter.

We

We landed at Fort Frontenac after twenty days sailing, and immediately upon our arrival, M. Duta, our commander-in-chief, viewed the fortifications of the place, and three large barks that lay at anchor in the port. We repaired the fortifications in a very little time, and fitted up the three barks. This fort was a square, consisting of large curtains flanked with four little bastions; these flanks had but two battlements, and the walls were so low, that one might easily climb upon them without a ladder. After M. de la Salle concluded the peace with the Iroquese, the King bestowed upon him and his heirs the property of this place: but he was so negligent, that instead of enriching himself by the commerce it might have afforded, he was considerably out of pocket upon it. To my mind this fort is situated very advantageously for a trade with the five Iroquese nations, for their villages lie in the neighbourhood of the lake, upon which they may transport their furs in canoes with more ease than they can carry them overland to New York. In time of war I take it to be indefensible, for the cataracts and currents of the river are such, that fifty Iroquese may there stop five hundred French, without any other arms but stones. Do but consider, Sir, that for twenty leagues together the river is so rapid, that we dare not set the canoe four paces off the shore; besides, Canada being nothing but a forest, as I intimated above, it is impossible to travel there without falling every foot into ambuscades, especially upon the banks of this river, which are lined with thick woods, that render them inaccessible. None but the savages can skip from rock to rock, and scour through the thickets as it were an open field. If we were capable of such adventures, we might march five or six hundred men by land to guard the canoes that carry the provisions; but at the same time it is to be considered, that before they arrived at the fort, they would consume more provisions than the canoes can carry, not to mention that the Iroquese would still out-number them. As to the particulars relating to the fort, I shall take notice of them when I come to give a general description of New France.

While we continued at Fort Frontenac, the Iroquese who live at Ganeouffe and Quentè, at the distance of seven or eight leagues from thence, threw in upon us harts, roebucks, turkies, and fish, in exchange for needles, knives, powder and ball. Towards the end of August, M. de la Barre joined us, but he was dangerously ill of a fever, which raged in like manner among most of his militia, so that only our three companies were free from sickness. This fever was of the intermitting kind, and the convulsive motions, tremblings, and frequency of the pulse that attended the cold fit, were so violent, that most of our sick men died in the second or third fit; their blood was of a blackish brown colour, and tainted with a sort of yellowish serum, not unlike pus or corrupt matter. M. de la Barre's physician, who, in my opinion, knew as little of the true causes of fevers as Hippocrates or Galen, and a hundred thousand besides; this mighty physician, I say, pretending to trace the cause of the fever I now speak of, imputed it to the unfavourable qualities of the air and the aliment. His plea was, that the excessive heat of the season put the vapours or exhalations into an over-rapid motion; that the air was so over-rarified, that we did not suck in a sufficient quantity of it, that the small quantity we did receive was loaded with insects and impure corpusculums, which the fatal necessity of respiration obliged us to swallow, and that by this means nature was put into disorder: he added, that the use of brandy and salt meat soured the blood, that this sourness occasioned a sort of coagulation of the chyle and blood, that the coagulation hindered it to circulate through the heart with a due degree of celerity, and that thereupon there ensued an extraordinary fermentation, which is nothing else but a fever. But after all, to my mind, this gentleman's system was too much upon the Iroquese strain; for at that rate the dis-

temper

temper must have seized all without distinction, whereas neither our soldiers nor the seasoned Canadians were troubled with it, for it raged only among the militia, who being unacquainted with the way of setting the boats with poles, were forced at every turn to get into the water and drag them up against the rapid stream: now, the waters of that country being naturally cold, and the heat being excessive, the blood might thereupon freeze by way of antiperistasis, and so occasion the fever I speak of, pursuant to the common maxim, *omnis repentina mutatio est periculosa*, i. e. 'All sudden changes are of dangerous consequence.'

As soon as M. de la Barre recovered, he embarked in order to continue his march, though he might have easily known, that after halting fourteen or fifteen days at that fort, when the season was so far advanced, he could not pretend to compass the end of his expedition. We rowed night and day, the weather being very calm, and in five or six days came before the river of Famine, where we were forced to put in upon the apprehension of a storm. Here we met with a canoe that M. Dulhut had sent from Missilimakinac, with advice, that pursuant to orders he had engaged the Hurons, Outaouas, and some other people, to join his army; in which he had above two hundred brave forest rangers*. This news was very acceptable to M. de la Barre; but at the same time he was very much perplexed; for I am persuaded he repented oftener than once, of his entering upon an expedition that he foresaw would prove successful; and to aggravate the danger of his enterprize, the Iroquese had at that time an opportunity to fall upon us: in fine, after a mature consideration of the consequences, and of the difficulties that stood in the way, he sent back the canoe to M. Dulhut, with orders to dismiss the forest rangers and savages immediately, wherever he was, and by all means to avoid the approaching to his troops. By good luck M. Dulhut had not yet reached Niagara, when he received these orders; with which the savages that accompanied him were so dissatisfied, that they threw out all manner of invectives against the French nation.

As soon as M. de la Barre had dispatched this canoe, he sent M. le Moine to the village of the Onnantagues, which lay about eighteen leagues up the river. This M. le Moine was a gentleman of Normandy, and highly esteemed by the Iroquese, who called him Akoueffan, i. e. the Partridge. His orders were, to endeavour by all means to bring along with him some of the old-standers of that nation; and accordingly he returned in a few days, accompanied with one of their most considerable grandees, who had a train of thirty young warriors, and was distinguished by the title of the grangula. As soon as he debarked, M. de la Barre sent him a present of bread and wine, and of thirty salmon-trouts, which they fished in that place in such plenty that they brought up a hundred at one cast of a net: at the same time he gave the Grandee to understand, that he congratulated his arrival, and would be glad to have an interview with him after he had rested himself for some days. You must know that he had used the precaution of sending the sick back to the colony, that the Iroquese might not perceive the weakness of his forces; and to favour the stratagem, M. le Moine represented to the Grangula, that the body of the army was left behind at Fort Frontenac, and that the troops he saw in our camp, were the general's guards; but unhappily one of the Iroquese that had a smattering of the French tongue, having strolled in the night-time towards our tents, overheard what we said, and so revealed the secret. Two days after their arrival, the Grangula gave notice to M. de

* See Coureurs de Bois in the Table.

la Barre, that he was ready for an interview ; and accordingly an hour being appointed, the whole company appeared.

The Grangula sat on the east side, being placed at the head of his men, with his pipe in his mouth, and the great calumet of peace before him. He was very attentive to the following harangue, pronounced by our interpreters ; which you cannot well understand, without a previous explication of the calumet, and the coliers that it mentions.

The calumet of peace is made of certain stones, or of marble, whether red, black, or white. The pipe or stalk is four or five foot long ; the body of the calumet is eight inches long, and the mouth or head in which the tobacco is lodged, is three inches in length ; its figure approaches to that of a hammer. The red calumets are most esteemed. The savages make use of them for negotiations and state affairs, and especially in voyages ; for when they have a calumet in their hand, they go where they will in safety. The calumet is trimmed with yellow, white and green feathers, and has the same effect among the savages that the flag of friendship has amongst us ; for to violate the rights of this venerable pipe, is among them a flaming crime, that will draw down mischief upon their nations. As for the coliers, they are certain swathes of two or three foot in length, and six inches in breadth ; being decked with little beads made of a certain sort of shells that they find upon the sea-shore, between New York and Virginia. These beads are round, and as thick as a little pea : but they are twice as long as a grain of corn : their colour is either blue or white ; and they are bored through just like pearl, being run after the same manner upon strings that lye sideways one to another. Without the intervention of these coliers, there is no business to be negotiated with the savages ; for being altogether unacquainted with writing, they make use of them for contracts and obligations. Sometimes they keep for an age the coliers that they have received from their neighbours ; and in regard that every colier has its peculiar mark, they learn from the old persons, the circumstances of the time and place in which they were delivered ; but after that age is over, they are made use of for new treaties.

M. de la Barre's Harangue was to this Purpose.

“ The King, my master, being informed that the five Iroquese nations have for a long time made infractions upon the measures of peace, ordered me to come hither with a guard, and to send Akouessan to the canton of the Onnotagues, in order to an interview with their principal leaders, in the neighbourhood of my camp. This great Monarch means, that you and I should smook together in the great calumet of peace, with the proviso, that you engage in the name of the Tsonnontouans, Goyogouans, Onnotagues, Onnoyoutes, and Agnies, to make reparation to his subjects, and to be guilty of nothing for the future that may occasion a fatal rupture.

The Tsonnontouans, Goyogouans, Onnotagues, Onnoyoutes and Agnies, have stripped, robbed, and abused all the forest rangers, that travelled in the way of trade to the country of the Illinese, of the Oumamis, and several other nations, who are my master's children. Now this usage being in high violation of the treaties of peace concluded with my predecessor, I am commanded to demand reparation, and at the same time to declare, that in case of their refusal to comply with my demands, or of relapsing into the like robberies, war is positively proclaimed.”

This Colier makes my Words good.

“ The warriors of these five nations have introduced the English to the lakes, belonging to the King, my master, and into the country of those nations to whom my master is a father : This they have done with a design to ruin the commerce of his subjects, and to oblige these nations to depart from their due allegiance ; notwithstanding the remonstrances of the late governor of New York, who saw through the danger that both they and the English exposed themselves to. At present I am willing to forget those actions ; but if ever you be guilty of the like for the future, I have express orders to declare war.”

This Colier warrants my Words.

“ The same warriors have made several barbarous incursions upon the country of the Illinese and the Oumamis. They have massacred men, women, and children ; they have taken, bound, and carried off an infinite number of the natives of those countries, who thought themselves secure in their villages in a time of peace. These people are my master's children, and therefore must hereafter cease to be your slaves. I charge you to restore them to their liberty, and to send them home without delay ; for if the five nations refuse to comply with this demand, I have express orders to declare war.”

This Colier makes my Words good.

“ This is all I had to say to the Grangula, whom I desire to report to the five nations, this declaration, that my master commanded me to make. He wishes they had not obliged him to send a potent army to the Fort of Cataracouy*, in order to carry on a war that will prove fatal to them : and he will be very much troubled, if it so falls out, that this fort, which is a work of peace, must be employed for a prison to your militia. These mischiefs ought to be prevented by mutual endeavours : the French who are the brethren and friends of the five nations, will never disturb their repose, provided they make the satisfaction I now demand, and prove religious observers of their treaties. I wish my words may produce the desired effect ; for if they do not, I am obliged to join the governor of New York, who has orders from the King, his master, to assist me to burn the five villages, and cut you off.”

This Colier confirms my Word.

While M. de la Barre's interpreter pronounced this harangue, the Grangula did nothing but look upon the end of his pipe : After the speech was finished, he rose, and having taken five or six turns in the ring that the French and the savages made, he returned to his place, and standing upright, spoke after the following manner to the general, who sat in his chair of state :

“ Onnontio†, I honour you, and all the warriors that accompany me do the same :

* The French call it Fort Frontenac.

† This title they give to the governor-general of Canada.

Your interpreter has made an end of his discourse, and now I come to begin mine. My voice glides to your ear ; pray listen to my words.

“ Onnontio, in setting out from Quebec, you must needs have fancied that the scorching beams of the sun had burnt down the forests which render our country unaccessible to the French ; or else that the inundations of the lake had surrounded our cottages, and confined us as prisoners. This certainly was your thought ; and it could be nothing else but the curiosity of seeing a burnt or drowned country, that moved you to undertake a journey hither. But now you have an opportunity of being undeceived ; for I and my warlike retinue come to assure you, that the Tsonontouans, Goyogouans, Onnotagues, Onnoyoutes and Agnies, are not yet destroyed. I return you thanks in their name, for bringing into their country the calumet of peace that your predecessor received from their hands. At the same time I congratulate your happiness in having left under ground* the bloody axe, that has been so often dyed with the blood of the French. I must tell you, Onnontio, I am not asleep, my eyes are open ; and the sun that vouchsafes the light, gives me a clear view of a great captain at the head of a troop of soldiers, who speaks as if he were asleep. He pretends that he does not approach to this lake with any other view than to smoke with the Onnotagues in the great calumet ; but the Grangula knows better things, he sees plainly that the Onnontio meant to knock them on the head, if the French arms had not been so much weakened.

“ I perceive that the Onnontio raves in a camp of sick people, whose lives the great spirit has saved, by visiting them with infirmities. Do you hear, Onnontio, our women had taken up their clubs ; and the children and the old men had visited your camp with their bows and arrows, if our warlike men had not stopped and disarmed them, when Akoueffan, your ambassador, appeared before my village. But I have done, I'll talk no more of that.

“ You must know, Onnontio, we have robbed no Frenchmen, but those who supplied the Illinese and the Oumamis (our enemies) with fuzes, with powder, and with ball : these indeed we took care of, because such arms might have cost us our life. Our conduct in that point is of a piece with that of the Jesuits, who stave all the barrels of brandy that are brought to our cantons, lest the people getting drunk should knock them in the head. Our warriors have no beavers to give in exchange for all the arms they take from the French ; and as for the old superannuated people, they do not think of bearing arms.

This Collier comprehends my Word.

“ We have conducted the English to our lakes †, in order to traffic with the Outaouas, and the Hurons ; just as the Algonkins conducted the French to our five cantons, in order to carry on a commerce that the English lay claim to as their right. We are born freemen, and have no dependence either upon the Onnontio or the Corlar ‡. We have a power to go where we please, to conduct who we will to the places we resort to, and to buy and sell where we think fit. If your allies are your slaves or children, you may even treat them as such, and rob them of the liberty of entertaining any other nation but your own.”

* Burying the axe signifies peace.

† They pretend to the property of the lakes.

‡ Corlar is the title of the governor of New York.

This Colier contains my Word.

"We fell upon the Illinefe and the Oumamis, becaufe they cut down the trees of peace that ferved for limits or boundaries to our frontiers. They came to hunt beavers upon our lands; and contrary to the cuftom of all the favages, have carried off whole flocks*, both male and female. They have engaged the Chaouanons in their intereft, and entertained them in their country. They fupplied them with fire-arms, after the concerting of ill defigns againft us. We have done lefs than the Englifh and the French, who without any right have ufurped the grounds they are now poffeffed of; and of which they have diflodged feveral nations, in order to make way for their building of cities, villages, and forts."

This Colier contains my Word.

"I give you to know, Onnontio, that my voice is the voice of the five Iroquefe cantons. This is their answer; pray incline your ear, and listen to what they represent."

"The Tfonontouans, Goyogouans, Onnotagues, Onnoyoutes, and Agnies declare, that they interred the axe† at Cataracouy, in the prefence of your predecessor, in the very centre of the fort, and planted the tree of peace in the fame place, that it might be carefully preferved; that it was then ftipulated, that the fort fhould be ufed as a place of retreat for merchants, and not a refuge for fouldiers; and that inftead of arms and ammunition, it fhould be made a receptacle of only beaver-fkins and merchandize goods. Be it known to you, Onnontio, that for the future you ought to take care, that fo great a number of martial men as I now fee being fhut up in fo fmall a fort, do not ftifle and choak the tree of peace. Since it took root fo eafily, it muft needs be of pernicious confequence to flop its growth, and hinder it to fhade both your country and ours with its leaves. I do affure you, in the name of the five nations, that our warriors fhall dance the calumet dance under its branches; that they fhall reft in tranquillity upon their mats‡, and will never dig up the axe to cut down the tree of peace, till fuch time as the Onnontio and the Corlar do either jointly or feparately offer to invade the country, that the Great Spirit has difpofed of in the favour of our anceftors."

This Colier contains my Word; and the other comprehends the Power granted to me by the five Nations.

Then the Grangula addreffed himfelf to Mr. Le Moine, and fpoke to this purpofe:

"Akoueffan, take heart, you are a man of fenfe; fpeak and explain my meaning; be fure you forget nothing, but declare all that thy brethren and thy friends represent to thy chief Onnontio, by the voice of the Grangula, who pays you all honour and refpect, and invites you to accept of this prefent of beavers, and to affift at his feaft immediately."

"This other prefent of beavers is fent by the five nations to the Onnontio."

* Among the favages it is a capital crime to deftroy all the beavers of a fettlement.

† Interring the axe, fignifies the making of a peace; and the digging of it up, imports a declaration of war.

‡ This phrafe fignifies keeping the peace.

As soon as the Grangula had done, M. Le Moine and the Jesuits that were present explained his answer to M. De la Barre, who thereupon retired to his tent, and stormed and blustered, till somebody came and represented to him that *Iroca progenies nescit habere modos* : i. e. 'The Iroquese are always upon extremes.' The Grangula danced after the Iroquese manner, by way of prelude to his entertainment, after which he regaled several of the French. Two days after, he and his martial retinue returned to their own country, and our army set out for Monreal. As soon as the General was on board, together with the few healthy men that remained, the canoes were dispersed, for the militia straggled here and there, and every one made the best of his way home. Our three companies, indeed, kept together, because all of us, both officers and soldiers, were carried in flat-bottomed boats, made of deal, on purpose for our use. However, I could have wished to have run down the falls and cataracts in the same canoe that brought me up, for every body thought we should have been cast away at these passes, which are full of eddies and rocks; and it was never heard before that such precipices were passed with deal boats, either upwards or downwards. But we were forced to run all hazards, and had certainly been swallowed up in those mountains of water, if we had not obliged several canoes to shoot the cataracts at the head of our boats, in order to shew us the way, at the same time we had prepared our soldiers for rowing and shieving upon occasion. Do but consider, sir, that the currents run as fast as a cannon-ball, and that one false stroke of the oar would have run us unavoidably upon the rocks; for we are obliged to steer a zig-zag course, pursuant to the thread of the stream, which has fifty windings. The boats which are loaded are sometimes lost in those places; but after all, though the risk we run be very great, yet by way of compensation one has the satisfaction of running a great way in a little time; for we run from Galete to this town in two days' time, notwithstanding that we crossed the two stagnating lakes I took notice of before.

As soon as we landed we received advice that the Chevalier de Calliers was come to supply the room of M. Perrot, the governor of this place. M. Perrot has had several scuffles with M. De Frontenac and Mr. De la Barre, of which you may expect a further account, when I am better informed. All the world blames our General for his bad success: it is talked publicly, that his only design was to cover the sending of several canoes to traffic with the savages in those lakes for beaver-skins. The people here are very busy in wafting over to court a thousand calumnies against him; both the clergy and the gentlemen of the long robe write to his disadvantage. Though, after all, the whole charge is false, for the poor man could do no more than he did. Just now I was informed, that Mr. Hainaut, Mr. Montortier, and Mr. Durivau, three captains of ships, are arrived at Quebec, with a design to pass the winter there, and to assist him as counsellors; and that the last of these three has brought with him an independent company, to be commanded by himself.

I shall have no opportunity of writing again before the next spring; for the last ships that are to return for France this year, are now ready to sail. I am, Sir,

Yours, &c.

LETTER

LETTER VIII.

Dated at Monreal, June 28, 1685.

Representing the Fortifications of Monreal, and the indiscreet Zeal of the Priests, who are Lords of that Town: with a Description of Chamblis, and of the Commerce of the Savages upon the great Lake.

SIR,

I HAVE just received yours, by a small vessel of Bourdeaux, loaded with wine; which is the first that came to Quebec this year. I am mightily pleased to hear that the King has granted to M. de la Salle four ships, to go upon the discovery of the Mouth of the Mississippi; and cannot but admire your curiosity in desiring to know the occurrences of this place, and how I spent my time in the winter.

M. de Callieres was no sooner possessed of his government, than he ordered all the inhabitants of this town, and of the adjacent country, to cut down and bring in great stakes of fifteen feet in length, to fortify the town. During the winter, these orders were pursued with so much application, that all things are now ready for making the inclosure; in which five or six hundred men are to be employed. I spent part of the winter in hunting with the Algonkins, in order to a more perfect knowledge of their language, and the rest I spent in this place, with a great deal of uneasiness; for here we cannot enjoy ourselves either at play or visiting the ladies, but it is presently carried to the curate's ears, who takes public notice of it in the pulpit. His zeal goes so far as even to name the persons; and since he refuses the sacrament of the holy supper to ladies of quality, upon the most slender pretences, you may easily guess at the other steps of his indiscretion. You cannot imagine to what a pitch these ecclesiastical lords have screwed their authority: they excommunicate all the masks; and wherever they spy them, they run after them to uncover their faces, and abuse them in a reproachful manner; in fine, they have a more watchful eye over the conduct of the girls and married women than their fathers and husbands have. They cry out against those that do not receive the sacrament once a month; and at Easter they oblige all sorts of persons to give in bills to their confessors. They prohibit and burn all the books that treat of any other subject but devotion. When I think of this tyranny, I cannot but be enraged at the impertinent zeal of the curate of this city. This inhuman fellow came one day to my lodging, and finding the romance of the Adventures of Petronius upon my table, he fell upon it with an unimaginable fury, and tore out almost all the leaves. This book I valued more than my life, because it was not castrated; and indeed I was so provoked when I saw it all in wreck, that if my landlord had not held me, I had gone immediately to that turbulent pastor's house, and would have plucked out the hairs of his beard with as little mercy as he did the leaves of my book. These animals cannot content themselves with the studying of men's actions, but they must likewise dive into their thoughts. By this sketch, Sir, you may judge what a pleasant life we lead here.

The 30th of the last March the ice melted; and the river being then open, I was sent with a small detachment to Chamblis: for commonly the sun resumes its vigour here much about that time. Chamblis stands on the brink of a basin, about five or six leagues off this place: that basin is two leagues in circumference, and receives the lake of Champlain by a water-fall that is a league and a half in length; out of which there
arises

arises a river that disembogues at Sorel into the river of St. Lawrence, as I intimated above in my fourth letter. In former times this place had a great trade in beaver-skins, which is now decayed: for the Soccokis, the Mahingans, and the Openangos, used formerly to resort thither in shoals, to exchange their furs for other goods; but at present they are retired to the English colonies, to avoid the pursuit of the Iroquese. The Champlain lake, which lies above that water-fall, is eighty leagues in circumference. At the end of this lake we met with another, called St. Sacrament, by which one may go very easily to New York, there being but a land-carriage of two leagues from thence to the river Du Fer, which falls into the Manathe. While I was at Chambli, I saw two canoes loaded with beaver-skins pass privately by that way; and it was thought they were sent thither by M. de la Barre. This smuggling way of trade is expressly prohibited: for they are obliged to carry these skins before the office of the company, where they are rated at an hundred and sixty per cent. less than the English buy them at in their colonies. But the little fort that stands at the bottom of the water-fall, upon the brink of the basin of Chambli, being only single pallisadoes, it cannot hinder people to pass that way; especially considering that the prospect of so great a profit renders the passengers the more daring. The inhabitants of the adjacent villages are very much exposed to the incursions of the Iroquese in time of war. Notwithstanding the weakness of the fort, I continued in that place a month and a half, and then I returned hither, where M. de la Barre arrived some days after; being accompanied with M. Hennaut, M. Montortier, and M. du Rivau. Much about the same day there arrived twenty-five or thirty canoes, belonging to the Coureurs de Bois, being homeward-bound from the great lakes, and laden with beaver-skins. The cargo of each canoe amounted to forty packs, each of which weighs fifty pounds, and will fetch fifty crowns at the farmer's office. These canoes were followed by fifty more of the Outaouas and Hurons, who come down every year to the colony, in order to make a better market than they can do in their own country of Missilimakinac, which lies on the banks of the lake of Hurons, at the mouth of the lake of the Illinese. Their way of trading is as follows:

Upon their first arrival, they encamp at the distance of five or six hundred paces from the town. The next day is spent in ranging their canoes, unloading their goods, and pitching their tents, which are made of birch bark. The next day after, they demand audience of the governor-general; which is granted them that same day in a public place. Upon this occasion, each nation makes a ring for itself; the savages sit upon the ground with their pipes in their mouths, and the governor is seated in an armed chair; after which, there starts up an orator or speaker from one of these nations, who makes an harangue, importing, "that his brethren are come to visit the governor-general, and to renew with him their wonted friendship: that their chief view is, to promote the interest of the French, some of whom being unacquainted with the way of traffick, and being too weak for the transporting of goods from the lakes, would be unable to deal in beaver-skins if his brethren did not come in person to deal with them in their own colonies: that they knew very well how acceptable their arrival is to the inhabitants of Montreal, in regard of the advantage they reap by it: that in regard the beaver-skins are much valued in France, and the French goods given in exchange are of an inconsiderable value, they mean to give the French sufficient proof of their readiness to furnish them with what they desire so earnestly: that by way of preparation for another year's cargo, they are come to take in exchange fuses, powder and ball, in order to hunt great numbers of beavers, or to gall the Iroquese, in case they offer to disturb the French settlements; and, in fine, that in confirmation of their words, they throw a porcelian colier with some beaver-skins, to the Kitchi-Okima (so they call the governor

governor general) whose protection they lay claim to in case of any robbery or abuse committed upon them in the town.

The spokesman having made an end of his speech, returns to his place, and takes up his pipe; and then the interpreter explains the substance of the harangue to the governor, who commonly gives a very civil answer, especially if the present be valuable: in consideration of which, he likewise makes them a present of some trifling things. This done, the savage rises up, and return to their huts to make suitable preparations for the ensuing truck.

The next day the savages make their slaves carry the skins to the houses of the merchants, who bargain with them for such cloaths as they want. All the inhabitants of Monreal are allowed to traffic with them in any commodity but wine and brandy; these two being excepted upon the account that when the savages have got what they wanted, and have any skins left, they drink to excess, and then kill their slaves; for when they are in drink, they quarrel and fight; and if they were not held by those who are sober, would certainly make havock one of another. However, you must observe, that none of them will touch either gold or silver. It is a comical sight, to see them running from shop to shop, stark naked, with their bow and arrow. The nicer sort of women are wont to hold their fans before their eyes, to prevent their being frightened with the view of their ugly parts. But these merry companions, who know the brisk she-merchants as well as we, are not wanting in making an offer, which is sometimes accepted of, when the present is of good mettle. If we may credit the common report, there are more than one or two of the ladies of this country, whose constancy and virtue has held out against the attacks of several officers, and at the same time vouchsafed a free access to these nasty lechers. It is presumed their compliance was the effect of curiosity, rather than of any nice relish; for, in a word, the savages are neither brisk nor constant. But whatever is in the matter, the women are the more excusable upon this head, that such opportunities are very unfrequent.

As soon as the savages have made an end of their truck, they take leave of the governor, and so return home by the river of Outaouas. To conclude, they did a great deal of good both to the poor and rich; for you will readily apprehend, that every body turns merchant upon such occasions.

I am, Sir, yours, &c.

LETTER IX.

Dated at Boucherville, October 2, 1683.

Being an Account of the Commerce and Trade of Monreal: of the Arrival of the Marquis of Denonville with some Troops; and of the Recalling of M. de la Barre. With a curious Description of certain Licenses for trading in Beaver-skins in the remote Countries.

SIR,

I RECEIVED your second letter three weeks ago, but could not send a speedier answer, by reason that none of our ships have set sail for France. Since you want to know the nature of the trade of Monreal, be pleased to take the following account:

Almost all the merchants of that city act only on the behalf of the Quebec merchants, whose factors they are. The barks which carry thither dry commodities, as well as wine and brandy, are but few in number; but then they make several voyages in one

year from the one city to the other. The inhabitants of the island of Monreal, and the adjacent cantons, repair twice a year to the city of Monreal, where they buy commodities fifty per cent. dearer than at Quebec. The savages of the neighbouring countries, whether settled or erratic, carry thither the skins of beavers, elks, caribous, foxes and wild cats; all which they truck for fuses, powder, lead and other necessaries. There every one is allowed to trade; and indeed it is the best place for the getting of an estate in a short time. All the merchants have such a perfect good understanding one with another, that they all sell at the same price. But when the inhabitants of the country find their prices exorbitant, they raise their commodities in proportion. The gentlemen that have a charge of children, especially daughters, are obliged to be good husbands, in order to bear the expence of the magnificent cloaths with which they are set off; for pride, vanity, and luxury reign as much in New France as in Old France. In my opinion, it would do well, if the King would order commodities to be rated at a reasonable price, and prohibit the selling of gold or silver brocades, fringes, and ribbands, as well as points and rich laces.

The Marquis of Denonville is come to succeed M. de la Barre in the quality of governor-general; for the King has recalled M. de la Barre, upon the accusation laid against him by his enemies. To be sure, you who are in France, know better than I, that M. de Denonville was maître de camp to the Queen's regiment of dragoons, which place he sold to M. Mercey when the King bestowed this government upon him; and, that he brought with him some companies of marines, besides his lady and his children; for it seems, the danger and inconveniencies that attend such a long and troublesome voyage, made no impression upon her. This governor stayed at first some weeks at Quebec, after which he came to Monreal, with five or six hundred men of regular troops, and sent back the Captains Hainaut, Montortier, and Du Rivo, with several other officers. His army is now in winter quarters all round Monreal. My quarters are at a place called Boucherville, which lies at the distance of three leagues from Monreal. I have been here fifteen days, and in all appearance shall live more happily than in the town, abating for the solitude; for at least I shall have no other opposition to encounter in the case of balls, gaming, or feasting, but the zealous freaks of a silly priest. I am informed, that the governor has given orders to complete the fortifications of Monreal, and is now ready to embark for Quebec, where our governors commonly pass the winter. The savages I spoke of in my last, met the Iroquese upon the great river of the Outaouas, who informed them that the English were making preparations to transport to their villages in Missilimakinac, better and cheaper commodities than those they had from the French. This piece of news did equally alarm the gentlemen, the pedlars called coureurs de bois, and the merchants; who at that rate, would be considerable losers; for you must know, that Canada subsist only upon the trade of skins or furs, three-fourths of which come from the people that live round the great lakes: so that if the English should put such a design in execution, the whole country would suffer by it; especially considering, that it would sink certain licenses; an account of which will be proper in this place.

These licenses are granted in writing by the governors-general to poor gentlemen and old officers who have a charge of children. They are disposed of by the King's orders; and the design of them is to enable such persons to send commodities to these lakes. The number of the persons thus impowered ought not to exceed twenty-five in one year; but God knows how many more have private licenses. All other persons, of what quality or condition soever, are prohibited to go or send to these lakes, without such licenses, under the pain of death. Each license extends to the lading of two great

canoes; and whoever procures a whole or a half license for himself, may either make use of it himself or sell it to the highest bidder. Commonly they are brought at six hundred crowns a piece. Those who purchase them, are at no trouble in finding pedlars or forest-rangers to undertake the long voyages, which fetch the most considerable gains, and commonly extend to a year and sometimes more. The merchants put into the two canoes stipulated in the license, six men with a thousand crowns worth of goods, which are rated to the pedlars at fifteen per cent. more than what they are sold for in ready money in the colony. When the voyage is performed, this sum of a thousand crowns commonly brings in seven hundred per cent. clear profit, and sometimes more, sometimes less; for these sparks called coureurs de bois bite the savages most dexterously, and the lading of two canoes, computed at a thousand crowns, is a purchase for as many beaver-skins as will load four canoes: now, four canoes will carry a hundred and sixty packs of skins, that is, forty a piece; and reckoning each pack to be worth fifty crowns, the value of the whole amounts to eight thousand crowns. As to the re-partition of this extravagant profit, it is made after the following manner: in the first place, the merchant takes out of the whole bulk six hundred crowns for the purchase of his license; then a thousand crowns for the prime cost of the exported commodities. After this, there remains six thousand four hundred crowns of surplufage, out of which the merchant takes forty per cent. for bottomry, which amounts to two thousand five hundred and sixty crowns; and the remainder is divided equally among the six coureurs de bois, who get little more than six hundred crowns a piece; and indeed I must say it is fairly earned; for their fatigue is inconceivable. In the mean time, you must remark, that over and above the foregoing profit, the merchant gets twenty-five per cent. upon his beaver-skins by carrying them to the office of the farmers general, where the price of four sorts of beaver-skins is fixed. If the merchant sells these skins to any private man in the country for ready money, he is paid in the current money of the country, which is of less value than the bills of exchange that the director of that office draws upon Rochel or Paris; for there they are paid in French livres, which are twenty sols, whereas a Canada livre is but fifteen sols. This advantage of twenty-five per cent. is called *le benefice*; but take notice, that it is only to be had upon beaver-skins; for if you pay to a Quebec merchant four hundred Canada livres in silver, and take from him a bill of exchange upon his correspondent in France, his correspondent will pay no more than three hundred French livres, which is a just equivalent.

This is the last intelligence I shall give you for this year, which has already brought in a very cold autumn. The Quebec ships must set sail in the middle of November, pursuant to the wonted custom.

I am, Sir, yours, &c.

LETTER X.

Dated at Boucherville, July 8, 1686.

Relating the Arrival of M. de Champigni, in the room of M. de Meules, who is recalled to France; the Arrival of the Troops that came along with him; the Curiosity of the Rackets, and the way of hunting Elks; with a Description of that Animal.

SIR,

THOUGH I have not heard from you this year, yet I will not flight this opportunity of writing to you. Some ships from France are arrived at Quebec, and have brought

brought over M. de Champigni Noroua, with some companies of marines. He comes to supply the place of M. de Meules, whom the King recalls upon the unjust complaints that are made of him. He is charged with preferring his private interest to the public good; but the charge is false, and he will easily clear himself. I am apt to believe he may have carried on some underhand commerce, but in so doing he injured nobody; nay, on the contrary, he has procured bread for a thousand poor creatures, that without his assistance would have starved for hunger. This new intendant is descended of one of the most illustrious families of the robe in France. He is said to be a man of honour, and fame entitles his lady to a distinguishing merit. I understand, he and M. Denonville are bound speedily for Monreal, where they mean to take a review of the inhabitants of this island, and of the neighbouring cantons. Probably, they take such precautions, in order to some new effort against the Iroquese. Last winter we had no new occurrences in the colony. I spent the whole winter at the hunting of orignals or elks along with the savages, whose language I am learning, as I have intimated to you several times.

The hunting of elks is performed upon the snow, with a kind of rackets adapted to the purpose. These rackets are two feet and a half long, and fourteen inches broad; their ledges are made of a very hard wood, about an inch thick, that fastens the net just like a tennis-racket, from which they differ only in this, that those for the tennis are made of gut-strings, whereas the others are made of little thongs of the skins of harts or elks. In the cut you may perceive two little spars of wood, which run across, to render the net firmer and stiffer. The hole that appears by the two latchets is the place in which they put the toes and fore-part of the foot; so that it is tied fast by the two latchets, which run twice round about the heel, and every step they make upon the snow, the fore-part of the foot sinks into that hole, as often as they raise their heel. By the help of this contrivance they walk faster upon the snow than one can do with shoes upon a beaten path; and indeed it is so necessary for them, that would be otherwise impossible not only to hunt and range the woods, but even to go to church, notwithstanding they are so near, for commonly the snow is three or four feet deep in that country during the winter. Being obliged to march thirty or forty leagues in the woods, in pursuit of the above-mentioned animals, I found that the fatigue of the journey equalled the pleasure of it.

The orignal is a sort of elk, not much different from that we find in Muscovy; it is as big as an Auvergne moyle, and much of the same shape, abating for its muzzle, its tail, and its great flat horns, which weigh sometimes three hundred and sometimes four hundred weight, if we may credit those who pretend to have weighed them; this animal usually resorts to planted countries; its hair is long and brown, and the skin is strong and hard, but not thick. The flesh of the orignal, especially that of the female sort, eats deliciously, and it is said, that the far hind foot of the female kind is a cure for the falling-sickness; it neither runs nor skips, but its trot will almost keep up with the running of a hart. The savages assure us, that in summer it will trot three days and three nights without intermission. These sort of animals commonly gather into a body towards the latter end of autumn, and the herds are largest in the beginning of the spring, at which time the she-ones are in rutting, but after their heat is over they all disperse themselves. We hunted them in the following manner: first of all, we went forty leagues to the northward of the river of St. Lawrence, where we found a little lake of three or four leagues in circumference, and upon the banks of that lake we made huts for ourselves of the barks of trees, having first cleared the ground of the snow that covered it. In our journey thither we killed as many hares and wood-hens

as we could eat. When we had fitted up our huts the savages went out upon the discovery of the elks, some to the northward and some to the south, to the distance of two or three leagues from the huts. As soon as they discovered any fresh foot-steps, they detached one of their number to give us notice, to the end, that the whole company might have the pleasure of seeing the chase. We traced these foot-steps sometimes for one and sometimes for two leagues, and then fell in with five, ten, fifteen or twenty elks in a body; which presently betook themselves to flight, whether a part or in a body and sunk into the snow up to their breast. Where the snow was hard and condensed, or where the frost following wet weather had glazed it above, we came up with them after the chase of a quarter of a league; but when the snow was soft or just fallen, we were forced to pursue them three or four leagues before we could catch them, unless the dogs happened to stop them where the snow was very deep. When we came up with them, the savages fired upon them with fuzes. If the elks be much enraged, they will sometimes turn upon the savages, who cover themselves with boughs in order to keep off their feet, with which they would crush them to pieces. As soon as they are killed, the savages make new huts upon the spot, with great fires in the middle; while the slaves are employed in flaying them, and stretching out the skins in the open air. One of the soldiers that accompanied me, told me one day, that to withstand the violence of the cold, one ought to have his blood composed of brandy, his body of brass, and his eyes of glass; and I must say, he had some ground for what he spoke, for we were forced to keep a fire all round us, all the night long. As long as the flesh of these animals last, the savages seldom think of stirring; but when it is all consumed, they then look out for a new discovery. Thus they continue to hunt, till the snow and the ice are melted. As soon as the great thaw commences it is impossible for them to travel far; so that they content themselves with the killing of hares and partridges, which are very numerous in the woods. When the rivers are clear of the ice, they make canoes of the elk-skins, which they sew together very easily, covering the seams with a fat sort of earth instead of pitch. This work is over in four or five days time, after which they return home in the canoes with all their baggage.

This, Sir, was our diversion for three months in the woods. We took fifty-six elks, and might have killed twice as many, if we had hunted for the benefit of the skins. In the summer season the savages have two ways of killing them, both of which are equally troublesome. One consists in hanging a rope-gin between two trees, upon a pass surrounded with thorns; the other is compassed by crawling like snakes among the trees and thickets, and approaching to them upon the leeward side, so that they may be shot with a fuzee. Harts and caribous are killed both in summer and winter after the same manner with the elks, excepting that the caribous, which are a kind of wild asses, make an easy escape when the snow is hard, by virtue of their broad feet, whereas the elk sinks as fast as he rises. In fine, I am so well pleased with the hunting of this country, that I have resolved to employ all my leisure-time upon that exercise. The savages have promised, that in three months time I shall see other sorts of chases, which will prove less fatiguing, and more agreeable.

I am, Sir, yours, &c.

LETTER

LETTER XI.

Dated at Boucherville, May 28, 1687.

Being a curious Description of the Hunting of divers Animals.

SIR,

YOU complain that the last year you received but one of my letters, dated July 8, and with the same breath assure me, that you writ two to me, neither of which is come to hand. I received a letter from you this day, which is so much the more acceptable, that I thought you had been dead, and that I find you continue to give proof of your remembrance of me. I find, by your letter, that you have an agreeable relish for the curious elk-hunting in this country, and that a further account of our other hunting adventures would meet with a welcome reception. This curiosity, indeed, is worthy of so great a huntsman as yourself; but at present I must beg your excuse as to the beaver-hunting, for I know nothing of it yet but by hearsay.

In the beginning of September, I set out in a canoe upon several rivers, marshes, and pools, that disembogue in the Champlain Lake, being accompanied with thirty or forty of the savages that are very expert in shooting and hunting, and perfectly well acquainted with the proper places for finding water-fowl, deer, and other fallow beasts. The first post we took up was upon the side of a marsh or fen of four or five leagues in circumference; and after we had fitted up our huts, the savages made huts upon the water in several places. These water-huts are made of the branches and leaves of trees, and contain three or four men: for a decoy, they have the skins of geese, bustards, and ducks, dried and stuffed with hay, the two feet being made fast with two nails to a small piece of a light plank, which floats round the hut. This place being frequented by wonderful numbers of geese, ducks, bustards, teals, and an infinity of other fowl unknown to the Europeans; when these fowls see the stuffed skins swimming with the heads erected, as if they were alive, they repair to the same place, and so give the savages an opportunity of shooting them, either flying or upon the water; after which the savages get into their canoes and gather them up. They have likewise a way of catching them with nets, stretched upon the surface of the water at the entries of the rivers. In a word, we eat nothing but water-fowl for fifteen days; after which we resolved to declare war against the turtle-doves, which are so numerous in Canada, that the bishop has been forced to excommunicate them oftener than once, upon the account of the damage they do to the product of the earth. With that view, we embarked and made towards a meadow, in the neighbourhood of which the trees were covered with that sort of fowl, more than with leaves; for just then it was the season in which they retire from the north countries, and repair to the southern climates; and one would have thought, that all the turtle-doves upon earth had chose to pass through this place. For the eighteen or twenty days that we staid there, I firmly believe that a thousand men might have fed upon them heartily, without putting themselves to any trouble. You must know, that through the middle of this meadow there runs a brook, upon which I and two young savages shot several snipes, rayles, and a certain sort of fowl called bateus de faux, which is as big as a quail, and eats very deliciously.

In the same place we killed some musk-rats, or a sort of animals which resemble a rat in their shape, and are as big as a rabbit. The skins of these rats are very much valued,

valued, as differing but little from those of beavers. Their testicles smell so strong of musk, that no civet or antelope that Asia affords, can boast of such a strong and sweet smell. We spied them in the mornings and evenings, at which time they usually appear upon the water with their nose to the windward, and betray themselves to the huntsmen, by the curling of the water. The fouteraux, which are an amphibious sort of little pole-cats, are caught after the same manner. I was likewise entertained upon this occasion, with the killing of certain little beasts, called siffleurs, or whistlers, with allusion to their wonted way of whistling or whizzing at the mouth of their holes in fair weather. They are as big as hares, but somewhat shorter; their flesh is good for nothing, but their skins are recommended by their rarity. The savages gave me an opportunity of hearing one of these creatures whistle for an hour together, after which they shot it. To gratify the curiosity I had to see such diversity of animals, they made a diligent search for the holes or dens of the carcaïoux, and having found some at the distance of two or three leagues from the fen upon which we were posted, they conducted me to the place. At the break of day we planted ourselves round the holes, with our bellies upon the ground; and left some slaves to hold the dogs a musket-shot behind us. As soon as these animals perceived day-light, they came out of their holes, which were immediately stopped up by the savages, and upon that the dogs fetched them up with ease. We saw but two of them, which made a vigorous defence against the dogs, but were strangled after a dispute of half an hour. These animals are not unlike a badger, only they are bigger, and more mischievous. Though our dogs shewed a great deal of courage in attacking the carcaïoux, they betrayed their cowardice the next day in a rencounter with a porcupine, which we spied upon a little tree. To obtain the pleasure of seeing the porcupine fall, we cut down the tree; but neither the dogs nor we durst go near it. The dogs only barked and jumped round it; for it darted its long and hard hair, like so many bodkins, three or four paces off. At last we pelted it to death, and put it upon the fire to burn off its darts; after which we scalded it like a pig, took out the entrails, and roasted it; but though it was very fat, I could not relish it so well as to comply with the assertion of the natives, who allege, that it eats as well as a capon or a partridge.

After the turtle-doves had all passed over the place, in quest of their southern retreats, the savages offered to send some of their number with canoes to conduct me home, before the rivers and lakes were frozen over; for themselves were to tarry out for the elk-hunting; and they imagined that the cold and hardship attending that exercise had made me sick of it the year before. However, we had then a month good before the commencement of the frost, and in that interval of time, they proffered to entertain me with more diverting game than any I had seen before. They proposed to go fifteen or sixteen leagues further up the country, assuring me, that they knew of a certain place that had the most advantageous situation in the world, both for pleasure and profit, and that afforded great plenty of otters, of the skins of which they meant to make a great cargo. Accordingly we pulled down our huts, and having embarked in our canoes, sailed up the river, till we came to a little lake of two leagues in circumference, at the end of which we saw another greater lake, divided from this by an isthmus of one hundred and fifty paces in length. We pitched our huts at the distance of a league from that isthmus; and some of the savages fished for trouts, while the rest were employed in laying traps for the otters upon the brinks of the lake. These traps are made of five stakes placed in the form of an oblong quadrangle, so as to make a little chamber, the door of which is kept up, and supported by a stake. To the middle of this stake they tie a string which passes through a little fork, and has
a trout

a trout well fastened to the end of it. Now, when the otter comes on shore, and sees this bait, he puts above half his body into that fatal cage, in order to swallow the fish ; but he no sooner touches, than the string to which it is made fast, pulls away the stake that supports the door, upon which an heavy and loaded door falls upon his reins and crushes him. During our pilgrimage in that part of the country, the savages took above two hundred and fifty Canada otters, the skins of which are infinitely prettier than those of Muscovy or Sweden. The best of them, which are not worth two crowns in this place, are sold in France for four or five, and sometimes for ten, if they are black and very rough. As soon as the savages had set their traps, they gave orders to their slaves to go round the lake every morning, in order to take out the amphibious animals. After that they conducted me to the above-mentioned isthmus, where I was surprized to see a sort of a park or fence made of trees, felled one upon another, and interlaced with thorns and branches ; with a quadrangular inclosure of stakes at the end of it, the entry of which was very narrow. They gave me to know, that they used to hunt harts in that place, and promised to divert me with the shew as soon as the inclosures were a little mended. In effect, they carried me two or three leagues off, upon such roads as had nothing on either side but fens and marshes ; and after they had dispersed themselves, some on one hand and some on the other, with a dog for every man, I saw a great many harts running to and again, in quest of places of safety. The savage that I kept company with, assured me, that he and I had no occasion to walk very fast, because he had taken the straightest and the nearest road. Before us we saw above ten harts, which were forced to run back, rather than throw themselves into the marsh, of which they could never get clear. At last, after walking a great pace, and running now and then, we arrived at the park, and found the savages lying flat upon the ground all round it, in order to shut up the entry of the stake inclosure as soon as the harts entered. We found thirty-five harts in the place, and if the park had been better fenced, we might have had above sixty ; for the nimblest and lightest of them skipped over before they came to enter the inclosure. We killed a great many of them, but spared the dams, because they were great with young. I asked of the savages the tongues and the marrow of the harts, which they gave me very readily. The flesh was very fat, but not delicious, excepting some few bits about the ribs. But after all, this was not our only game ; for two days after we went a bear-hunting, and the savages, who spend three parts of four of their life in hunting in the woods, are very dexterous at that exercise, especially in singling out the trunks of the trees upon which the bears nestle. I could not but admire their knowledge in that point, when, as we were walking up and down in a forest, at the distance of an hundred paces one from another, I heard one savage call to another, Here's a bear. I asked them how he knew there was a bear upon the tree which he knocked with his axe ; and they all replied, that it was as easily distinguished as the print of an elk's foot in the snow. For five or six times they never missed ; for after they had knocked two or three times upon the trunk of the tree, the bear came out of its hole, and was presently shot. The Canada bears are extreme black, but not mischievous, for they never attack one, unless they be wounded or fired upon. They are so fat, especially in the autumn, that they can scarce walk. Those which we killed were extremely fat, but their fat is good for nothing but to be burnt, whereas their flesh, and, above all, their feet, are very nice victuals. The savages affirm, that no flesh is so delicious as that of bears ; and indeed, I think they are in the right of it. While we ranged up and down in quest of bears, we had the pleasure of spying some martins and wild-cats upon the branches of the trees, which the savages shot in

the head to preserve their skin. But the most comical thing I saw, was the stupidity of the wood-hens, which sit upon the trees in whole flocks, and are killed one after another, without ever offering to stir. Commonly the savages shoot at them with arrows, for they say they are not worth a shot of powder, which is able to kill an elk or an hart. I have plied this sort of fowling in the neighbourhood of our cantons or habitations in the winter time, with the help of a dog who found out the trees by scent, and then barked; upon which I approached to the tree, and found the fowls upon the branches. When the thaw came, I went two or three leagues further up the lake, in company with some Canadese, on purpose to see that fowl flap with its wings. Believe me, Sir, this sight is one of the greatest curiosities in the world; for their flapping makes a noise much like that of a drum all about, for the space of a minute or thereabouts; then the noise ceases for half a quarter of an hour, after which it begins again. By this noise we were directed to the place where the unfortunate moor-hens sat, and found them upon rotten mossy trees. By flapping one wing against the other, they mean to call their mates; and the humming noise that ensues thereupon may be heard half a quarter of a league off. This they do only in the months of April, May, September and October; and, which is very remarkable, the moor-hen never flaps in this manner, but upon one tree. It begins at the break of day, and gives over at nine o'clock in the morning, till about an hour before sunset that it flutters again and continues so to do till night; I protest to you, that I have frequently contented myself with seeing and admiring the flapping of their wings without offering to shoot at them.

Besides the pleasure of so many different sorts of diversion, I was likewise entertained in the woods with the company of the honest old gentlemen that lived in former ages. Honest Homer, the amiable Anacreon, and my dear Lucian, were my inseparable companions. Aristotle too desired passionately to go along with us, but my canoe was too little to hold his bulky equipage of peripatetic syllogisms: so that he was even fain to trudge back to the Jesuits, who vouchsafed him a very honourable reception. I had a great deal of reason to rid myself of that great philosopher's company; for his ridiculous jargon and his senseless terms would have frightened the savages out of their wits. Farewell, Sir, I am now arrived at once at the end of my game and my letter. I have heard no news from Quebec, where they continue to make mighty preparations for some considerable enterprize. Time will discover a great many things, an account of which I mean to transmit to you by the ships that are to leave this harbour in the end of autumn. I conclude with my usual compliment,

Yours, &c.

LETTER XII.

Dated at St. Helens, over against Monreal, June 8, 1687.

The Chevalier de Vaudreil arrives in Canada with some Troops. Both the Regular Troops and the Militia are posted at St. Helens, in readiness to march against the Iroquese.

SIR,

I HAVE such a budget-full of news, that I know not where to begin. I received letters but now from M. Senelay's office; by which I have advice, that orders are sent to M. Denonville to allow me to go for France upon my private concerns. No

longer since than yesterday, he told me I should have leave to go after the campaign is over. My relations write, that the procuring this leave cost them a great deal of pains ; and that the sooner I come to Paris, it will be the better for me.

The governor arrived at Monreal three or four days ago, with all the militia of the country, who lie now encamped along with our troops in that island. M. D'Amblemont has been at Quebec this month, with five or six second-rate ships, having sailed from Rochelle thither in twenty-eight days. He brought over with him ten or twelve companies of marines, who are to guard the colony, while we invade the Iroquese country. It is said, that last year M. Denonville sent several Canadese, that were known and esteemed by the savages, our allies, who live upon the banks of the lakes, and the adjacent countries, with orders to engage them to favour our design of extirpating the Iroquese. In the winter he made magazines of ammunition and provisions, and now he has sent several canoes, laden with provisions, to Fort Frontenac, and given orders for the building of an infinite number of such boats as I described in my fourth letter, for the transporting of our twenty companies of marines. The militia who are encamped in this island along with our troops, make fifteen hundred men, and are joined by five hundred of the converted savages that live in the neighbourhood of Quebec and the island of Monreal. The Chevalier Vaudreuil, who is come from France to command our troops, is resolved to appear in the field, notwithstanding the fatigue of his passage to Canada ; and the governor of Monreal is of the same mind. M. de Champigni, the intendant of this country, went from hence to Fort Frontenac two days ago. The day after to-morrow M. de Denonville means to march at the head of his little army, being accompanied with an ancient Iroquese, that is very much respected by the Five Cantons. The history and various adventures of this old gentleman are too tedious to bear a relation in this place. Every body is apprehensive that this expedition will prove as unsuccessful as that of M. de la Barre : and if their apprehensions are not disappointed, the King lays out his money to no purpose. For my own part, when I reflect upon the attempt we made three years ago, I cannot but think it impossible for us to succeed. Time will discover the consequences of this expedition ; and perhaps we may come to repent, though too late, of our complying with the advice of some disturbers of the public peace, who project to enlarge their private fortunes in a general commotion. I lay this down for an uncontested truth, that we are not able to destroy the Iroquese by ourselves : besides, what occasion have we to trouble them, since they give us no provocation ? However, let the event be what it will, I shall not fail, upon my return, to transmit you a journal of our actions, unless it be, that I embark for Rochelle, and deliver it myself. In the mean time, believe me to be, Sir,

Yours, &c.

LETTER XIII.

Dated at Niagara, Aug. 2, 1687.

Representing the unfavourable Issue of the Campaign made in the Iroquese Country ; the Discovery of an Ambuscade ; and the issuing of Orders for the Author to march with a Detachment to the great Lakes.

SIR,

IT has been a maxim in all ages, that the events of things are not always answerable to men's expectations : when men form to themselves a promising prospect of com-

passing their ends, they frequently meet with the mortification of seeing themselves disappointed. This I speak by way of application to myself; for instead of going for France, pursuant to the contents of the letter I writ to you two months ago, I am now obliged to straggle to one end of the world, as you will find by the following journal of our expedition.

We broke up from St. Helens much about the time I spoke of in my last. M. de Champigni went before us with a strong guard, and arrived in a canoe at Fort Frontenac, eight or ten days before we came up. As soon as he arrived, he sent two or three hundred Canadese to surprize the villages of Kente and Ganeouffe, which lie at the distance of seven or eight leagues from the fort, and are inhabited by a sort of Iroquese, that deserved no other usage than what they met with. Our Canadese had no great difficulty in mastering them; for they surprized them when they least thought of any alarm, and brought them prisoners to Fort Frontenac, where they were tied to posts, with cords round their necks, hands, and feet. We arrived at the fort on the first of July, after the encountering of several difficulties among the water-falls, cataracts, and currents, that I formerly described to you in my account of M. de la Barre's expedition. We were more perplexed in this voyage than the former; for our boats were so heavy, that we could not transport them over land as we did the canoes, but were obliged to drag them up through the impracticable passes with the force of men and ropes. Immediately upon our debarking, I went straight to the fort, where I saw the miserable prisoners in the above-mentioned posture. The sight of this piece of tyranny filled me at once with compassion and horror; but, in the mean time, the poor wretches sung night and day, that being the customary practice of the people of Canada when they fall into the hands of their enemies. They complained, "that they were betrayed without any ground; that in compensation for the care they had taken ever since the peace to furnish the garrison with fish and venison, they were bound and tied to posts, and whipped in such a manner, that they could neither sleep, nor guard off the flies; that the only requital they met with for procuring to the French a commerce in the skins of beavers and other animals, was, to be doomed to slavery, and to see their fathers, and the ancient men of their country, murdered before their eyes. "Are these the French," said they, "that the Jesuits cried up so much for men of probity and honour? Even the cruellest sort of death that imagination itself can reach, would be nothing to us in comparison with the odious and horrible spectacle of the blood of our ancestors, that is shed so inhumanly before our eyes. Assuredly, the five villages will revenge our quarrel, and entertain an everlasting and just resentment of the tyrannical usage we now meet with." I made up to one of these wretches that was about five-and-twenty years old, and had frequently regaled me in his hut, not far from the fort, during my six weeks service in that place, in the year of M. de la Barre's expedition. This poor man being master of the Algonkin language, I gave him to know, that I was heartily grieved to see him in that dismal posture; that I would take care to have victuals and drink conveyed to him twice a day, and would give him letters for my friends at Monreal, in order to his being used more favourably than his companions. He replied, that he saw and was very well acquainted with the horror that most of the French were affected with, upon the view of the cruelty they underwent; and that he scorned to be fed, or used more civilly than his fellow-prisoners. He gave me an account of the manner in which they were surprized, and how their ancestors were massacred; and truly, I do not believe that any one can be touched with more cutting and bitter reflections than this poor man was, when he recounted the many services he had done the French, during the whole course of his life: at last, after many sighs

and groans, he bowed down his head, and wrapped himself up in silence. *Quæque potest narrat, restabant ultima flevit.* But this was not the only thing that affected me, when I beheld the misery of these innocent creatures: I saw some young savages of our side burn their fingers with fire in their lighted pipes; which provoked me to thresh them soundly; but I was severely reprimanded for my pains, and confined to my tent for five or six days, where I only repented that I had not dealt my blows in a double measure. These savages resented the matter so highly, that they ran presently to their huts, and flew to their fuses, in order to kill me; nay, all that could be done was scarce sufficient to appease them; for the dispute came to that height, that they would have left us, if it had not been that our men assured them I was drunk*, that all the French were prohibited to give me either wine or brandy, and that I should certainly be imprisoned as soon as the campaign was over.. However, the poor wretches, the prisoners, were carried to Quebec; from whence they are to be sent to the French galleys. Much about that time, the Sieur de la Forest, one of M. de la Salle's officers, arrived at the fort in a great canoe, being conducted thither by eight or ten coureurs de bois. He gave M. de Denonville to understand, that a party of the Illinese and the Oumamis waited for the Hurons and the Outaouas at the lake of St. Claire, in order to join them, and to march with joint forces to the river of the Tsonontouans, that being the place of their general rendezvous. He added, that in the lake of the Hurons near Missilimakinac, M. de la Durantais, assisted by the savages, our allies, had taken an English company, conducted by some Iroquese, who had fifty thousand crowns worth of goods in their canoes, to be disposed of in exchange with the nations that dwell upon these lakes; as also, that M. Dulhut had taken another English convoy, being assisted by the coureurs de bois, and the savages, who had shared the former capture; and that he had kept the English and Iroquese as prisoners, as well as their commander, who was called Major Gregory; in fine, he represented to M. de Denonville, that it was high time for him to set out from Fort Frontenac, if he meant to appear at the general rendezvous, where the auxiliary troops sent from the lakes, would arrive very speedily. The next day, being the third of July, the Sieur de la Forest embarked again for Niagara, and steered to the north side of the lake. At the same time we embarked and stood to the opposite side of the lake, being favoured by the calms which in that month are very common.

By good luck our whole body arrived almost at one and the same time in the river of the Tsonontouans; and upon that occasion, the savages, our allies, who draw predictions from the most trifling accidents, shewed their wonted superstition in taking this for an infallible presage of the utter destruction of the Iroquese. Though after all, they proved false prophets, as you will find by the sequel of this letter. The same night that we landed, we hauled our canoes and boats out of the water, and set a strong guard upon them. This done, we built a fort of stakes or pales, where we left the Sieur Dorvillers with four hundred men to guard our shipping and baggage. The next day, a young Canadese, called Fontaine Marion, was unjustly shot to death. His case stood thus: having travelled frequently all over this continent, he was perfectly well acquainted with the country, and with the savages of Canada; and after the doing of several good services to the King, desired leave from the governor-general to continue his travels, in order to carry on some little trade; but his request was never granted. Upon that, he resolved to remove to New England, the two crowns being then in peace. The planters of New England gave him a very welcome recep-

* Among the savages drunken persons are always excused; for the bottle atones for all crimes.

tion ; for he was an active fellow, and one that understood almost all the languages of the savages. Upon this consideration, he was employed to conduct the two English convoys I spoke of but now, and had the misfortune to be taken along with them. Now, to my mind, the usage he met with from us was extreme hard ; for, we are in peace with England ; and besides, that crown lays claim to the property of the Lakes of Canada.

The next day we began our march towards the great village of the Tsonontouans, without any other provisions than ten biscuits a man, which every one carried for himself. We had but seven leagues to march in a great wood of tall trees, upon a smooth even ground. The *coureurs de bois*, with a party of the savages, led the van, and the rest of the savages brought up the rear, our regular troops and our militia being posted in the middle. The first day the army marched four leagues, and the advanced guards made no discovery. The second day our advanced parties marched up to the very fields of the village without perceiving any thing, though they past within a pistol-shot of five hundred Tsonontouans, who lay flat upon the ground, and suffered them to pass and repass without molestation. Upon their intelligence we marched up with equal precipitation and confusion, being buoyed up with the apprehension that the Iroquese had fled, and that, at least, their women, children, and superannuated persons would fall into our hands. When we arrived at the bottom of the hill, upon which the ambuscade was placed, at the distance of a quarter of a league from the village, they began to raise their wonted cry, which was followed by the firing of some muskets. Had you but seen, Sir, what disorder our troops and militia were in amidst the thick trees, you would have joined with me, in thinking that several thousands of Europeans are no more than a sufficient number to make head against five hundred barbarians. Our battalions were divided into straggling parties, who fell into the right and left, without knowing where they went. Instead of firing upon the Iroquese, we fired upon one another. It was to no purpose to call in the soldiers of such and such a battalion, for we could not see thirty paces off ; in fine, we were so disordered, that the enemy were going to close in upon us with their clubs in their hands, when the savages of our side having rallied, repulsed the enemy, and pursued them to their villages with so much fury that they brought off the heads of eighty, and wounded a great many. In this action we lost ten savages, and a hundred French. We had twenty or two-and-twenty wounded, in which number was the good Father Angeleran the Jesuit, who received a musket-shot in those parts which Origen chose to lop off, in order to qualify himself for instructing the fair sex without the disturbance of passion, or the danger of scandal. When the savages brought in the heads of their enemies to M. de Denonville, they asked him why he halted, and did not march up ? He made answer, that he could not leave his wounded men behind, and that he thought it proper to encamp, that the surgeons might have time to dress their wounds. To obviate this pretence, the savages offered to make litters for the transporting of them to the village, that lay but a little way off. But our general did not approve of their advice ; upon which, notwithstanding his remonstrances, they drew up into a body, and though they consisted of ten different nations, agreed in a joint resolution of pursuing their enemy, in hopes of taking, at least, their women, their old men, and their children. Our general being acquainted with their resolution, gave them to know, that he earnestly desired they would rest for one day, and not depart from his camp, and that the next day he would burn their villages, and starve them to death by spoiling their crops. But they took this compliment so ill, that most of them returned to their own country ; remonstrating, “ That the French came out to fetch a walk, rather than to wage war, since

since they would not take the advantage of the best opportunity in the world ; that their ardour, like a flash of fire, was extinguished as soon as kindled ; that it was a fruitless adventure to draw together so many warriors, from all parts, to burn some huts of bark, that the enemy could rebuild in four days ; that the Tsonontouans did not matter the spoiling of their corn, for that the other Iroquese nations were able to supply them ; and in fine, that since they had joined the French twice together to no purpose, they would never trust them for the future, in spite of all the remonstrances they could make." Some are of opinion, that M. de Denonville ought to have gone farther ; and others affirm, that it was impossible for him to do more than he did ; for my part, I shall not venture upon any decision of the matter ; those who sit at the helm, are most liable to be perplexed. To pursue the bare matter of fact ; we marched next day to the great village, and carried our wounded men upon litters, but we found nothing there but ashes ; for the Iroquese had burnt the village themselves, by way of precaution. Then we spent five or six days in cutting down the Indian corn with our swords. From thence we marched to the two little villages of the Thegaronhies and the Danoncaritaoui, which lay about two or three leagues off. Having done the like exploits there, we returned to the lake side. In all these villages we found plenty of horses, black cattle, fowl and hogs. All the country round afforded us a very charming, pleasant, and even prospect, The forests through which we marched were replenished with oak, walnut, and wild chesnut-trees.

Two days after we embarked for Niagara, which lay thirty leagues off, and arrived there in four days. As soon as the troops had debarked, we employed them in making a fort of pales with four bastions, which was finished in three days. Here we mean to leave an hundred and twenty soldiers under the command of M. des Bergeres, with ammunition and provisions for eight months. The fort stands on the south side of the streight of Herrie Lake, upon a hill ; at the foot of which, that lake falls into the lake of Frontenac. Yesterday the savages, our allies, took leave of M. de Denonville, and made a speech after their usual manner ; in which, among other things, they insinuated, that they were pleased to see a fort so conveniently placed, which might favour their retreat upon any expedition against the Iroquese ; that they depended upon his promise, of continuing the war till the five nations should be either destroyed or dispossessed of their country ; that they earnestly desired that part of the army should take the field out of hand, and continue in it both winter and summer, for that they would certainly do the same on their part ; and in fine, that forasmuch as their alliance with France was chiefly grounded upon the promises the French made of listening to no proposals of peace, till the five nations should be quite extirpated, they therefore hoped they would be as good as their word ; especially considering that a cessation of arms would fully the honour of the French, and infallibly disengage their allies. M. de Denonville gave them fresh assurances of his intention to carry on the war, in spite of all the efforts of the Iroquese ; and in a word, protested that he would prosecute this design so vigorously, that in the end these barbarians should be either quite cut off, or obliged to shift their seats.

The general called for me that very day, and acquainted me, that in regard I understood the language of the savages, I was to go with a detachment to cover their country, pursuant to their request. At the same time he assured me, he would inform the court of the reasons that moved him to detain me in Canada, notwithstanding that he had orders to give me leave to go home. You may easily guess, Sir, that I was thunder-struck with this news, when I had fed myself all along with the hopes of returning to France, and promoting my interest, which is now so much thwarted. However,

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I was forced to be contented ; for the greater power bears the sway all the world over. Pursuant to my orders, I made all suitable preparations for my voyage, without loss of time. I took leave of my friends, who singled out the best soldiers for me ; and made me presents of cloaths, tobacco, books, and an infinity of other things that they could spare without any inconveniency, because they were then upon their return to the colony, which affords every thing that one can desire. By good luck, I brought my astrolabe with me from Monreal, which will enable me to take the latitudes of this lake, and to make several other useful observations ; for, in all appearance, I shall be out two years or such a matter. The men of my detachment are brisk proper fellows, and my canoes are both new and large. I am to go along with M. Dulhut, a Lyons gentleman, who is a person of great merit, and has done his King and his country very considerable services. M. de Tonti makes another of our company ; and a company of savages is to follow us. M. de Denonville will set out for the colony by the north side of the lake of Frontenac, in two or three days. He designs to leave at Fort Frontenac a number of men and ammunition equal to what he leaves here. I herewith transmit some letters for my relations, which I beg you would convey to their hands. If I meet with any opportunity, I'll send you a journal of my voyage the next year. In the mean time,

I am, Sir, yours, &c.

LETTER XIV.

Dated at Missilimakinac, May 26, 1688.

The Author leaves Niagara, and has an Encounter with the Iroquese at the end of the Land-carriage. The After-part of his Voyage. A Description of the Country. He arrives at Fort St. Joseph in the Mouth of the Lake of Hurons. A Detachment of the Hurons arrive at the same Place. After an Engagement, they set out for Missilimakinac. A strange Adventure of M. de la Salle's Brother. Missilimakinac described.

SIR,

I AM at a loss to determine whether it is owing to stupidity, or greatness of mind, that the loss of my estate, which I infallibly foresee, does not at all affect me. Your letter is but too shrewd a confirmation of my prophecy. However, I cannot but pursue your seasonable advice in writing to court ; in the mean time suffer me to satisfy my promise, in presenting you with a relation of my voyages.

I embarked at Niagara August 3d, on board a canoe manned with eight soldiers of my detachment ; and after running three leagues against the current of the streight, came that same day to the place where the navigation stops. There I met with the Sieur Grifolon de la Tourette, brother to M. Dulhut, who had ventured to come from Missilimakinac with a single canoe to join the army. The 4th we commenced our great land-carriage to the southward, being obliged to transport our canoes from a league and a half below the great Fall of Niagara, to half a league above it. Before we got at any beaten or level path, we were forced to climb up three mountains, upon which an hundred Iroquese might have knocked us all on the head with stones. While we were employed in this transport service, we were alarmed twice or thrice ; which cautioned us to keep a strict guard, and to transport our baggage with all possible expedition. Nay, after all our precautions, we were forced to leave one-half of our baggage about half-

half-way, upon the discovery of a thousand Iroquese that marched towards us. Do you judge, Sir, if we had not some reason to be alarmed; and whether we would stand to sacrifice all to the natural principle of self-preservation; though indeed we were in danger of losing our lives as well as our baggage; for we had not embarked above the Fall half a quarter of an hour, when the enemy appeared upon the streight side. I assure you, I escaped very narrowly; for about a quarter of an hour before, I and three or four savages had gone five hundred paces out of our road, to look upon that fearful cataract; and it was as much as I could do, to get at the canoes before they put off. To be taken by such cruel fellows was to me no trifling thing. *Il morir e niente, ma il vivere brugiando e troppo.* "To die is nothing; but to live in the midst of fire * is too much."

As for the water-fall of Niagara; it is seven or eight hundred foot high, and half a league broad. Towards the middle of it we descry an island that leans towards the precipice, as if it were ready to fall. All the beasts that cross the water within half a quarter of a league above this unfortunate island, are sucked in by force of the stream; and the beasts and fish that are thus killed by the prodigious fall, serve for food to fifty Iroquese, who are settled about two leagues off, and take them out of the water with their canoes. Between the surface of the water that shelves off prodigiously, and the foot of the precipice, three men may cross abreast without any other damage than a sprinkling of some few drops of water.

To return to the story of the thousand Iroquese; I must tell you, that we crossed the streight with all the vigour we were masters of, and after rowing all night arrived next morning at the mouth of the lake, which appeared to be indifferently rapid. Then we were secure from all danger, for the Iroquese canoes are so dull and large, that they cannot sail near so quick as those made of birch-bark. The former are made of elm-bark, which is very heavy, and their form is very awkward, for they are so long and broad that thirty men row in them, two abreast, whether sitting or standing, and the sides are so low that they dare not venture them upon the lakes, though the wind be very slack. We coasted along the north coast of the Lake of Erie, being favoured by the calms, which are in a manner constant in that season, especially in the southern countries. Upon the brink of this lake we frequently saw flocks of fifty or sixty turkies, which run incredibly fast upon the sands; and the savages of our company killed great numbers of them, which they gave to us in exchange for the fish that we caught. The 25th we arrived at a long point of land which shoots out 14 or 15 leagues into the lake; and the heat being excessive, we chose to transport our boats and baggage two hundred paces over land, rather than coast about for thirty-five leagues. September 6, we entered the streight of the Lake of Hurons, where we met with a slack current of half a league in breadth, that continued till we arrived in the Lake of St. Claire, which is twelve leagues in circumference. The 8th of the same month we steered on to the other end, from whence we had but six leagues to run against the stream, till we arrived in the mouth of the Lake of Hurons, where we landed on the 14th. You cannot imagine the pleasant prospect of this streight, and of the little lake; for their banks are covered with all sorts of wild fruit-trees. It is true, the want of agriculture sinks the agreeableness of the fruit; but their plenty is very surprising. We spied no other animals upon the shore, but herds of harts and roe-bucks: and when we came to little islands, we scoured them in order to oblige these beasts to cross over to the continent, upon which they offering to swim

* The prisoners taken by the Iroquese are frequently burnt.



Engraved by F. Drake from an original drawing.

Falls of Niagara.

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over, were knocked on the head by our canoe-men that were planted all round the islands. After our arrival at the fort, of which I was ordered to take possession, M. Dulhut and M. de Tonti had a mind to rest themselves for some days, as well as the savages that accompanied us. This fort, which was built by M. Dulhut, was garrisoned upon his own charges by the *coureurs de bois*, who had taken care to sow in it some bushels of Turkey wheat, which afforded a plentiful crop, that proved of great use to me. The garrison surrendered their post very cheerfully to my detachment; and then pursued their commerce with our savages, for every one had leave to go where he pleased. This gave me an opportunity of sending two canoes under a guard of soldiers, to dispose of a great roll of tobacco of two hundred weight, that M. Dulhut had kindly presented me with; for that honest gentleman informed me, that my soldiers might easily purchase corn in exchange for tobacco, sooner than for any other commodities. I am obliged to him as long as I live; but I am much afraid the treasurer of the navy will make him no better compensation for this piece of service, than for a thousand other disbursements upon the King's account. The soldiers I sent with the tobacco, returned in the latter end of November, and brought with them the Reverend Father Avenau the Jesuit, who found no occasion to trouble himself with preaching up abstinence from meat in the time of Lent. They brought advice, that a party of the Hurons being prepared to march out of their villages, to attack the Iroquese beaver-hunters, would speedily repair to the fort to rest themselves. In the mean time I waited with impatience for the arrival of one Turcot, and four more of the *coureurs de bois*, who were to come to me in the beginning of December, along with some other huntsmen that M. de Denonville had promised to send me; but hearing nothing of them, and our commons being at that time very short, I should have been very much pinched if four young Canadese who were expert huntsmen, had not tarried with me all winter. The above mentioned party of the Hurons arrived December 2d, being headed by one Saentsouan, who left me his canoe and his baggage, to keep till he returned; for he could not possibly continue his navigation longer, upon the account that the surface of the water began then to be covered with ice. These savages chose to march over land to the fort of Niagara, where they expected to receive intelligence before they entered the country of the Iroquese. They marched ten days, i. e. fifty leagues without seeing one soul. But at last their scouts perceived the footsteps of some huntsmen, which they traced at a great pace for a whole night, the snow being then a foot deep. Towards the break of day they returned, and gave notice to their fellow-adventurers, that they had discovered six huts, with ten men lodged in each of them. Upon this intelligence the whole party made a halt, in order to paint their faces, to prepare their arms, and to concert proper measures. The attack was so formed that two men made softly up to the two doors of the huts with their clubs in their hands, to knock down any one that offered to come out, while the rest were employed in firing their pieces. And the action was crowned with wonderful success; for the Iroquese being surpris'd and shut up in their bark prisons, there were but two out of sixty-four that made their escape; and these two being naked and destitute of fire-arms, could not but perish in the woods. Three of the Hurons indeed were killed upon the spot, but to atone for that loss, the aggressors carried off fourteen prisoners, and four women. This done, they marched back to my fort with all possible expedition. Among the captive slaves, there were three who had made part of the number of the one thousand Iroquese that thought to have surpris'd us the year before, when we were employed in the great land-carriage at Niagara. They gave us to understand, that the fort of Niagara was blocked

up by eight hundred Iroquefe, who meant to appear before my poft without any delay. This troublefome piece of news galled me to the laft degree, for fear of being reduced to extremities ; and with that view I was a very nice husband of what corn I had left. I was not apprehenfive of being attacked by them, for the favages never fight fairly, neither do they ever attempt to pull up pallifadoes ; but I was afraid that they would ftarve us out by cramping our huntfmen in their due range. However, the Hurons continuing fifteen days in my fort to refresh themfelves, I ufed the precaution of engaging them to affift my huntfmen in providing meat : but as foon as they took leave of me in order to return home, our hunting was at an end, and the gates were kept fhut.

At laft, finding that my provifions were almoft out, I refolved to go to Miffilimakinac, to buy up corn from the Hurons and the Outaouas. Accordingly, having left fome foldiers to guard the fort in my abfence, I embarked with the reft of my detachment on the firft of April, with a gentle fouth-eaft gale ; by the help of which we infenfibly crossed the bay of Saguinan. That little gulph is fix hours over, and in the middle of of it there are two little iflands, which afford a very feafonable fhelter when a wind arifes in the croffing over. Before you have croffed this bay, the coaft is all along full of rocks and fhelves, one of which that I faw was fix leagues broad : but above it the coaft is clean and low, efpecially towards the fand-river, which lies half-way between that bay and a place called l' Anfe du Tonnerre. Now this laft place is reckoned thirty leagues off the bay. Having paffed that, we had but thirty leagues more to fail ; which we did without any danger, but the help of an eaft-fouth-eaft gale, that fwelled the waves prodigiously. In the mouth of the Illinefe lake we met the party of the Hurons that I mentioned before ; and four or five hundred Outaouas, who were bound home, after having fpent the winter in hunting of beavers upon the river of Saguinan. Both they and we were forced to lie by in that place for three or four days, by reafon of the ice : after which the lake was cleared, and we croffed it together. When the Hurons came afhore, they confulted among themfelves how to difpofe of their flaves : after which they made a prefent of one of them to M. de Juchereau, who commanded in that place ; but the poor wretch was prefently fhut to death. Another of them was prefented to the Outaouas, who granted him his life, for fuch reafons as you would eafily apprehend, if you were better acquainted with the policy and cunning of that fort of men, whom you now take for beafts.

I arrived in this place on the 18th of April, and my uneafinefs and trouble took date from the day of my arrival ; for I found the Indian corn fo fcarce by reafon of the preceding bad harvefts, that I defpaired of finding half fo much as I wanted ; but after all, I am hopeful, that two villages will furnifh me with almoft as much as I have occafion for. M. Cavelier arrived here May 6, being accompanied with his nephew, Father Anaftafe the recollect, a pilot, one of the favages, and fome few Frenchmen, which made a fort of a party-coloured retinue. Thefe Frenchmen were fome of thofe that M. de la Salle had conducted upon the difcovery of Miffiffipi. They gave out, that they are fent to Canada, in order to go to France, with fome difpatches from M. de la Salle to the King : but we fufpect that he is dead, becaufe he does not return along with them. I fhall not fpend time in taking notice of their great journey over-land ; which, by the account they give, cannot be lefs than eight hundred leagues.

Miffilimakinac, the place I am now in, is certainly a place of great importance. It lies in the latitude of forty-five degrees, and thirty minutes : but as for its longitude, I have nothing to fay of it, for reafons mentioned in my fecond letter. It is not above half

half a league distant from the Illinese lake, an account of which, and indeed of all the other lakes, you may expect elsewhere. Here the Hurons and Outaouas have each of them a village; the one being severed from the other by a single pallisadoe: but the Outaouas are beginning to build a fort upon a hill, that stands but one thousand or twelve hundred paces off. This precaution they were prompted to by the murder of a certain Huron, called Sandaouires, who was assassinated in the Saguanan river by four young Outaouas. In this place the Jesuits have a little house, or college adjoining to a fort of a church, and inclosed with pales that separate it from the village of the Hurons. These good fathers lavish away all their divinity and patience to no purpose, in converting such ignorant infidels; for all the length they can bring them to, is, that oftentimes they will desire baptism for their dying children, and some few superannuated persons consent to receive the sacrament of baptism, when they find themselves at the point of death. The coureurs de bois have but a very small settlement here; though at the same time it is not inconsiderable, as being the staple of all the goods that they truck with the south and the west savages; for they cannot avoid passing this way, when they go to the seats of the Illinese, and the Oumamis, or to the Bay des Puants, and to the river of Mississipi. The skins which they import from these different places, must lie here some time before they are transported to the colony. Missilimakinac is situated very advantageously; for the Iroquese dare not venture with their sorry canoes, to cross the strait of the Illinese lake, which is two leagues over; besides that the lake of the Hurons is too rough for such slender boats: and as they cannot come to it by water, so they cannot approach to it by land, by reason of the marshes, fens, and little rivers, which it would be very difficult to cross; not to mention that the strait of the Illinese lake lies still in their way.

You can scarce believe, Sir, what vast shoals of white fish are caught about the middle of the channel, between the continent and the isle of Missilimakinac. The Outaouas and the Hurons could never subsist here without that fishery; for they are obliged to travel about twenty leagues in the woods, before they can kill any harts or elks, and it would be an infinite fatigue to carry their carcases so far over-land. This sort of white fish, in my opinion, is the only one in all these lakes that can be called good; and indeed it goes beyond all other sorts of river fish. Above all, it has one singular property, namely, that all sorts of sauces spoil it, so that it is always eat either boiled or broiled, without any manner of seasoning. In the channel I now speak of, the currents are so strong, that they sometimes suck in the nets, though they are two or three leagues off. In some seasons, it so falls out that the currents run three days eastward, two days to the west, one to the south, and four northward; sometimes more, and sometimes less. The cause of this diversity of currents could never be fathomed, for in a calm, they will run in the space of one day, to all the points of the compass, i. e. sometimes one way, sometimes another, without any limitation of time; so that the decision of the matter must be left to the disciples of Copernicus. Here the savages catch trouts as big as one's thigh, with a sort of fishing hook made in the form of an awl, and made fast to a piece of brass wire, which is joined to the line that reaches to the bottom of the lake. This sort of fishery is carried on not only with hooks, but with nets, and that in winter, as well as in summer: for they make holes in the ice at a certain distance one from another, through which they conduct the nets with poles. The Outaouas and the Hurons have very pleasant fields, on which they sow Indian corn, pease, and beans, besides a sort of citruls, and melons, which differs much from ours, and of which I shall take occasion to speak to another place. Sometimes these savages sell their corn very dear, especially when the beaver-hunters happens not

to take well. Upon which occasion they make sufficient reprisals upon us for the extravagant price of our commodities.

As soon as I have brought up sixty sacks of corn, each of which may weigh fifty pound, I am to march with my detachment alone to St. Mary's Fort, in order to engage the Sauteurs or the inhabitants of Saut Saint Marie, to join the Outaouas; after which we mean to march with joint forces to the country of the Iroquese. Besides these, there is a party of a hundred Hurons ready to march, under the command of the great leader Adario, whom the French call the Rat; but they do not march our way. I shall write to you with the first opportunity after my return from this expedition. Perhaps the Jesuits will send your letters for me along with M. Denonville's to Fort St. Joseph, where I am to reside, I shall expect their arrival with the utmost impatience. In the mean time I send you a letter directed to M. de Seignelay, the purport of which I have here subjoined. It will be a very sensible obligation laid upon me, if you vouchsafe to believe that I always am,

Sir, yours, &c.

The Letter directed to M. De Seignelay.

HONOURED SIR,

I AM the son of a gentleman that spent three hundred thousand crowns in deepening the water of the two Gaves of Bearn: he had the good luck to compass his end by conveying a great many brooks to these two rivers; and the current of the Adour was by that means so far strengthened as to render the bar of Bayonne passable by a fifty-gun ship, whereas in former times a frigate of ten guns durst not venture over it. It was in consideration of this great and successful attempt that His Majesty granted to my father and his heirs for ever, certain duties and taxes, amounting to the sum of three thousand livres a year. This grant was confirmed by an act of the council of state, dated January 9, 1658, signed Bossuet, collated, &c. Another advantage accruing to the King and the province from my father's services, consists in the bringing down of masts and yards from the Pyrenean mountains, which could never have been effected if he had not by his care, and by the disbursing of immense sums, enlarged the quantity of water in the Gave of Oleron to a double proportion. These duties and taxes, which had been justly entailed upon him and his heirs, ceased to be ours when he died; and to inflame the disgrace, I lost his place, viz. that of being an honorary judge of the parliament of Pau, and chief justice in eyre for the province of Bearn; all which were mine by inheritance. These losses are now followed by an unjust seizure that some pretended creditors have made of the barony of La Hontan, of a piece of ground that lies contiguous to it, and of a hundred thousand livres that lay in the hands of the chamber of Bayonne. These faithless creditors have no other reason to sue me, but that I am now in the far end of the world, and that they are rich, and supported by the credit and protection of the parliament of Paris, where they hope to make good their unjust pretensions in my absence. Last year I obtained leave to return to France, in order to take care of this matter; but now M. de Denonville has sent me with a detachment to these lakes; from whence I humbly petition that your honour would vouchsafe me leave to come home the next year, and at the same time honour me with your protection.

I am, with all possible respect, Your Honour's, &c.

LETTER

LETTER XV.

Dated at Missilimakinac, Sep. 18, 1688.

Describing the Fall called Saut St. Marie, where the Author persuades the Inhabitants to join the Outaouas, and march against the Iroquese. And containing an Account of the Occurrences of the Voyage between that Place and Missilimakinac.

SIR,

I AM now returned from the Iroquese country, and have quitted the Fort of St. Joseph against my will. I cannot allow myself to doubt, but that you took care of the letter directed for M. de Seignelay, which I transmitted to you three months ago.

I set out from hence in my canoe, June 2; and after my arrival at the water-fall called Saut Sainte Marie, I persuaded forty young warlike fellows to join the party of the Outaouas that I mentioned in my last. This Saut Sainte Marie is a cataract, or rather a water-fall of two leagues in length, which gives vent to the waters of the upper lake, and at the bottom of which, not far from the Jesuit's house, there is a village of the Outchipoues, alias Sauteurs. This place is a great thoroughfare for the coureurs de bois that trade with the northern people, who usually repair to the brinks of that lake in the summer. The continual fog that rises from the upper lake, and spreads over the adjacent country, renders the ground so barren that it bears no corn. The 13th of the same month I set out from the above-mentioned village, being accompanied by the forty young Sauteurs, who embarked in five canoes, each of which held eight men. The 16th we arrived at the isle of Detour, where my soldiers and the party of the Outaouas had tarried for me two days. The first day was spent by the Outaouas and the Sauteurs in warlike feasts, dancing, and singing, pursuant to their wonted custom: the next day we all embarked, and traversing from isle to isle, made the island of Manitoualin in four days. This island is twenty-five leagues long, and seven or eight broad. In former times it was possessed by the Outaouas of Talon, called the Otontagans; who were dislodged by the progress of the Iroquese, that has ruined so many nations. We coasted upon that isle a whole day; and being favoured by a calm, crossed from isle to isle till we made the east side of the lake. In this passage we crossed between two islands that were six leagues distant the one from the other; and upon that occasion our watermen, who were not used to venture so far out in their slender boats, were fain to tug hard at their oars. The savages stood out at first, and refused to venture so far from land, for they would rather have gone fifty leagues about; but at last I over persuaded them, by representing that I would have been very loth to venture my own person, if I had not been sufficiently provided against all danger by an exact knowledge of the winds and the storms. The calm continuing, we made the river of Theonontate on the 25th. The next day there sprung up a gale from the west-south-west, which kept us back for four or five days; but our stop was of no great advantage to us, for it rained so heavily, that we could not hunt. This country is the ancient seat of the Hurons, as it appears from the name they give to their nations in their own language, viz. Theonontateronons, i. e. the inhabitants of Theonontate. But after the Iroquese had upon divers occasions, taken and defeated great numbers of them, the rest quitted the country to avoid the like fate. We re-embarked on the 29th, and on the 1st of July arrived at Fort St. Joseph, where the soldiers I had left waited for us with great impatience. Having landed some sacks of corn at the fort, we set out again on the 3d of July, and pursued our course with all diligence, in order to an early appearance in the

the Iroqueſe country. We ſailed through the ſtrait or neck, and ſtood to the ſouth ſide of the lake Erie; and being favoured by the weather, arrived on the 17th in the river Conde, which I ſhall have occaſion to take notice of in deſcribing the lakes of Canada. Immediately, upon our landing, the ſavages fell to work in cutting down trees, and making a redoubt of ſtakes, or pales, for the ſecurity of our canoes and baggage, and for a ſafe retreat to ourſelves in caſe of neceſſity.

The 20th they marched, each man being provided with a light covering, a bow, and ſome arrows, (or elſe a fuſee) and a little bag containing ten pound weight of the flour of the Indian corn. They thought it moſt convenient to keep to the banks of the river, upon which the Goyogoans are wont to fiſh for ſturgeon; for that fiſh, which is fix feet in length, comes out of the lakes in hot weather, and ſwims up the rivers. They had reſolved likewiſe, if they found the country clear to march up and ſurprize the villages of the Goyogoans: but they were ſoon eaſed of that trouble, for they had not marched two days when their ſcouts deſcried three hundred Iroqueſe; and on the other hand, the Iroqueſe ſpied them to ſuch purpoſe, that the ſcouts eſcaped very narrowly, and had much ado to return to the body of the party, which immediately betook themſelves to flight. I was mightily ſurprized when I heard the centinel of our redoubt cry out, *Aux armes*, our men are beaten and purſued; but I was yet more ſurprized when I ſaw the fugitives run at full ſpeed, when there was nobody behind them. When they came up, they were all ſilent for half an hour, purſuant to their uſe and wont; after which their leader recounted to me the particulars of the adventure. I thought at firſt that their advanced guards had miſtook the number of the enemies; for I knew that the Outaouas had not the reputation of too much courage; but the next day a party of the Iroqueſe appeared in ſight of our redoubt, which gave the occaſion to believe that they were in the right of it. Nay, this truth was afterwards confirmed by a certain ſlave called Chaouanon, who made his eſcape to the redoubt, and aſſured me, that the Iroqueſe were not leſs than four hundred; to which he added, that they expected to be joined by ſixty more that had marched ſome months before to the country of the Oumamis. He informed us farther, that while the Marquis de Denonville was concerting meaſures for a peace with the five nations, an Engliſhman, of the name of Aria, accompanied with ſome others, endeavoured to diſſuade them from peace, by orders from the governor of New York. In the mean time the ſavages having preſſed me to aſſiſt at a council of war, they propoſed to lie by for a fair wind, and then to embark. They repreſent, that they deſigned to ſail to the end of the lake, where they would infallibly light upon the ſixty Iroqueſe that I mentioned above; but withal, that they could not agree to ſet out in a calm, becauſe that after their quitting the redoubt, and launching out, a contrary wind might force them aſhore, where their throats might be cut if the enemy purſued them. I replied, that it was then ſuch fine weather, that we had nothing to expect but calms; that if we tarried longer in this place, our enemies would thereby gain time to make canoes in order to a purſuit: that ſince the favourableneſs of the wind was ſo uncertain, we ought to embark without loſs of time; that we might ſail in the night and ſculk in the day time behind rocks and points of land; and, that by this means the enemy would be at a loſs to know whether we ſtood to the ſouth or to the north ſide of the lake. The ſavages made anſwer, that it was true their tarrying might be every way prejudicial; but it was equally true, that my expedient was dangerous: however, they conſented to embark along with us, and for that end gummed their canoes. We embarked on the 24th at night, and the weather being fair, clear, and calm, made a great deal of way that night, and the ſucceeding day. The next evening we came to an anchor, deſigning to ſleep for three or four hours, but

not to stir out of the canoes. About midnight we weighed our little wooden anchors, and one half of the men rowed while the other was at rest. Thus did we continue to steer with a great deal of precaution and care, rowing all night, and lying by all day.

July 28th, when we were lying almost all asleep in a creek of a little island, the watch descrying some canoes that made towards us, waked some savages that had gone ashore to sleep the more conveniently. The noise having alarmed us all, we presently made ourselves ready to get in head of these canoes; but at the same time, though we were but half a league off, we could not distinguish who they were, by reason that the sunbeams falling perpendicularly, made the surface of the water look like a looking-glass. Indeed there being but two of them, we reckoned they were manned with Iroquese, and that each of them contained at least twenty men; upon which suspicion, the leader of the Sauteurs offered to go ashore with his men, and post himself at the entry of a wood, from whence he would softly follow the canoes without being discovered, until such time as we forced them ashore. At the same time he proposed that the Outaouas and my detachment should suffer them to be within a musket-shot of the island before we discovered ourselves, or offered to give them chase, upon the apprehension that if we followed them closer, they would be so far from getting on shore, that they would fight as desperate, and chuse rather to be killed or drowned than to be taken. This proposal was liked, and every thing was managed accordingly. As soon as our unknown enemy perceived us, they made the shore with all imaginable precipitation; and just when they were going to knock their prisoners on the head, the Sauteurs fell upon them, but missed of their aim in taking them all alive; for they fought to the last gasp, like men that knew no medium betwixt conquest and death. *Una salus victis nullam sperare salutem.* This engagement happened while we landed; however, the Sauteurs came off with honour, for they lost only four men, and of twenty Iroquese they killed three, wounded five, and took the rest prisoners, so that not one of them escaped. The Iroquese had along with them eighteen slaves of the Oumamis, who were all wounded, and seven big-bellied women, from whom we had intelligence that the rest of their party were then upon their return by land upon the banks of the lake, having thirty-four prisoners, of both sexes; and that they could not then be far off. When this intelligence was laid before us, the Outaouas were of the opinion that we should rest satisfied with the feats we had done, upon the plea that the above-mentioned four hundred Iroquese would certainly get before us. On the other hand, the Sauteurs maintained that they had rather perish than fail to attempt the rescue of these prisoners, and the defeat of the whole party; and that if nobody would second them, they would make the attempt by themselves. The bravery of this resolution obliged me to encourage and edge on the Outaouas. I remonstrated to them, that in regard the Sauteurs engrossed the glory of the former action, they had more reason than we to decline the risque of a second engagement, that if we refused to back them, our cowardice would cover us with everlasting infamy; and, that in order to render the attack more secure, we ought to use a speedy precaution in finding out some point or elbow of land where our canoes, our baggage, and our prisoners might be lodged safe. The Outaouas had a great deal of reluctance to the matter; however, after consulting among themselves, they complied with the proposal, more for shame, than out of true courage. Having laid down that joint resolution, we made up a little sort of a fence in seven or eight hours, and then sent out scouts on all hands, while the main body was kept in readiness to march upon the first alarm.

August 4, two of our spies returned upon full speed, to acquaint us that the Iroquese were not above three leagues off, and that they advanced towards us; and withal, that
upon

upon the road there was a little brook, upon which an ambuscade might be conveniently laid. This advice animated our savages so much, that they run immediately to take possession of that advantageous post; but they knew not how to make the right use of it. The Outaouas were too hasty in firing; and by shooting at too great a distance, gave all the enemies an opportunity of making their escape, abating for ten or twelve whose heads were brought into the little fort where I staid. The slaves indeed were all retaken, and so rescued from the cruelty of these tigers; which encouraged us to rest satisfied. When the expedition was over, we stowed these poor wretches in our canoes, and steered with all expedition to the strait or neck of the lake of Huron, which we made on the 13th. We enjoyed a great deal of pleasure in stemming the current of that streight; the islands of which, that I mentioned above, were covered with roe-bucks. This opportunity we did not slight; nor did we grudge our stopping upon these islands for eight days; during which time we were busied in hunting, and refreshed ourselves with plenty of excellent fruit that was fully ripe. Here the wounded and retaken prisoners had an opportunity of resting, and of drinking the broth of several sorts of meat; and we had time to broil as much meat as we could stow in our canoes, not to mention the great number of turkeys that we were obliged to eat upon the spot, for fear that the heat of the season would spoil them.

In that space of time the poor wounded savages were carefully purged with such roots as the Americans are well versed in; which I mean to explain to you in its proper time and place; and they wanted not good restoratives of jelly-broth. The 24th we re-embarked, and arrived at night at Fort St. Joseph, where I found a party of eighty Oumamis, commanded by one Michitonka, who being lately returned from Niagara, expected my arrival with the utmost impatience. When I landed, I was surprized to see the fort crammed with savages; but on the other hand, they were equally astonished to find in our company their countrymen, to whose hard fortune they had been altogether strangers. The joyful meeting filled the air with acclamations, and panegyrics rung all about to an extravagant degree. I wish, Sir, you had been there to partake of the pleasure of so fine a show; had you been present, you would have joined with me in owning that all our French rhetoric cannot reach such pithy and significant figures, especially upon the score of hyperboles, as made up the bulk of the harangues and songs that these poor people uttered with rapture and transport. Michitonka acquainted me, that after he went to the fort of Niagara, with a design to make some expedition into the country of the Tsonontouans, he found that the scurvy had made such a terrible havoc in that fort, that it had swept off the commander, and all the soldiers, bating twelve, who had the good luck to get over it, as well as M. de Bergeres, who by the advantage of a hale constitution, had stemmed the raging violence of that distemper. He informed me farther, that M. Bergeres having resolved to set out with his twelve men for the fort of Frontenac, had desired of him a reinforcement of some young Oumamis, which was granted him; that after M. Bergeres had embarked, himself marched over-land to the country of the Onnontagues, where he rejoined the reinforcement he had granted to M. de Bergeres, and understood from them, that during the winter the scurvy had carried off as many soldiers at Fort Frontenac as at Niagara; and, that M. de Denonville was negotiating a peace with the Iroquese.

The governor of fort Frontenac had requested Michitonka to engage in no enterprise, and to return home with his men; upon which that leader being in full march homeward, was attacked by three hundred Onnontagues, whom he durst not engage otherwise than in a running fight, by which he lost four men. Being informed of all these

these circumstances, I consulted with the three different nations that were then posted in my fort. After a mature reflection upon the intelligence that was laid before them, they came to this resolution ; that since the Marquis de Denonville had a mind to clap up a peace, and the fort of Niagara was abdicated, the fort I then commanded would be of no use ; that since I had neither provisions nor ammunition for above two months, I should be obliged at the end of these two months to retreat to the place from whence I now write ; that at that time of the year our navigation would be uneasy and dangerous ; that in regard I lay under an indispensable necessity of making my retreat, it was of no great moment whether I marched off two months sooner or later ; and, in fine, that since I had received no fresh orders, nor no succours, it was my business to go off along with them. This resolution, which was a sufficient argument to sway me, afforded matter of joy to the soldiers, who were afraid of being obliged to a more rigorous course of abstinence in that post than they had formerly undergone ; for the measures of a critical abstinence do not sit well upon a soldier's stomach ; in fine, pursuant to our joint resolution, we set fire to the fort on the 27th, and embarked that same day, and keeping close to the south shore of the lake that I took notice of in my last, arrived here on the 10th of September. The Oumamis marched over-land to their own country, and carried with them the wounded, who were then in a condition to march.

Upon my arrival in this place, I found here M. de la Durantay, whom M. Denonville has invested with the commission of commander of the *coureurs de bois* that trade upon the lakes, and in the southern countries of Canada. The governor has sent me orders to return to the colony if the season and other circumstances permit ; or to tarry here till the spring, if I foresee insurmountable difficulties in the passage. In the mean time he has sent me effects to answer the pay of my detachment, and to subsist them in the winter. These orders would be extremely acceptable to me, if I could but contrive how to return to the colony ; but that seems to be absolutely impossible ; and both the French and the savages agree that it is so. There are in that passage so many water-falls, cataracts, and places where there is a necessity of tedious land-carriages, that I dare not run such hazards with my soldiers, who cannot work the boats but upon stagnant water. Upon that consideration I have thought it more proper to halt here till the next year ; at which time I design to take the advantage of the company of some Frenchmen and savages, that promise to take into each of their canoes one of my men. In the mean time, I am upon the point of undertaking another voyage, for I cannot mew myself up here all this winter. I design to make the best use of my time, and to travel through the southern countries that I have so often heard of, having engaged four or five good huntsmen of the Outaouas to go along with me.

The party of the Hurons that I mentioned in the beginning of my letter, returned hither two months ago, and brought with them an Iroquese slave, whom their leader presented to M. de Inchereau, the late colonel of the *coureurs de bois*, and whom that colonel ordered to be immediately shot. The crafty leader acted upon that occasion a very cunning and malicious part, the fatal consequences of which I easily foresee : he entrusted nobody with the secret but myself ; for he is my true friend, and he knows that I am his ; however, I must go no farther upon this matter, lest my letter should be intercepted. Though after all, if the blow were not already given, or if it were possible to remedy it, my friendship should not hinder me from acquainting M. de Denonville with the intrigue, that he might get clear of it as well as he

could. If it pleases God to allow me a safe return to France, I shall tell you the story by word of mouth.

I understand by your last, that the King has preferred his almoner, the abbot of St. Valiers, to the bishoprick of Quebec ; and that this bishop was consecrated in St. Sulpice's church. This piece of news would be very welcome to me, if I thought he would be less rigid than M. de Laval, his predecessor. But what likelihood is there that the new bishop will be of a tractable temper ? If it is true that he has refused other good bishopricks, he must be as scrupulous as the monk Dracontius, that St. Athanasius censures for not accepting of a presentation to a bishoprick that was offered him ; in fine, if he is of that scrupulous temper, his critical strictness will scarce go down in this country ; for the people are already tired out with his predecessor's excommunications.

I am, Sir, yours, &c.

LETTER XVI.

Dated at Missilimakinac, May 28. 1689.

Containing an Account of the Author's Departure from and Return to Missilimakinac. A Description of the Bay of Puants, and its Villages. An ample Description of the Beavers ; followed by the Journal of a remarkable Voyage upon the Long River, and a Map of the adjacent Country.

SIR,

THANK God, I am now returned from my voyage upon the Long River, which falls into the river of Mississipi. I would willingly have traced it up to its source if several obstacles had not stood in my way. I set out from hence the 24th of September accompanied with my own detachment, and the five huntsmen I mentioned in my last ; who indeed did me a great deal of service. All the soldiers were provided with new canoes loaded with provisions and ammunition, and such commodities as are proper for the savages. The wind, which stood then in the north, waisted me in three days to the bay of Pouteouatamis, that lay forty leagues off. The mouth of that bay is in a manner choaked with isles, and the bay itself is ten leagues broad, and twenty-five leagues long.

The 29th we came to a little deep sort of a river, which disembogues at a place where the water of the lake swells three foot high in twelve hours, and decreases as much in the same compass of time. Our tarrying there three or four days gave me an opportunity of making this remark : the villages of the Sakis, the Pouteouatamis, and some Malominis, are seated on the side of that river, and the Jesuits have a house or college built upon it. This is a place of great trade for skins and Indian corn, which these savages sell to the coureurs de bois, as they come and go, it being the nearest and most convenient passage to the river of Mississipi. The soil of this country is so fertile that it produces (in a manner without agriculture) our European corn, pease, beans, and several other fruits that are not known in France. As soon as I landed, the warriors of these three nations came by turns to my apartment, to regale me with the calumet dance, and with the captain's dance ; the former being a signification of peace and friendship, and the latter of respect and esteem. I returned the compliment with a present of some rolls of Brasil tobacco, which they value mightily, and some strings of Venice beads, with which they embroider their coats. Next morning I was
invited

invited to a feast with one of the three nations; and after having sent to them some dishes and plates, pursuant to the custom of the country, I went accordingly about noon. They began with congratulating my arrival, and after I had returned them thanks, fell a singing and dancing one after another, in a particular manner, of which you may expect a circumstantial account when I have more leisure. The singing and dancing lasted for two hours, being seasoned with acclamations of joy and jests, which made up part of their ridiculous music. After that the slaves came to serve, and all the company sat down after the Eastern fashion, every one being provided with his mess, just as our monks are in the monastery halls.

First of all, four platters were set down before me, in the first of which there were two white fish only boiled in water; in the second, the tongue and breast of a roebuck boiled; in the third, two wood-hens, the hind feet or trotters of a bear, and the tail of a beaver, all roasted; and the fourth contained a large quantity of broth made of several sorts of meat. For drink they gave me a very pleasant liquor, which was nothing but a syrup of maple beat up with water; but of this more elsewhere. The feast lasted two hours; after which I intreated one of the grandees to sing for me; for in all the ceremonies made use of among the savages, it is customary to employ another to act for them. I made this grandee a present of some pieces of tobacco, in order to oblige him to act my part till night. Next day, and the day after, I was obliged to go to the feasts of the other two nations, who observed the same formalities. The most curious thing I saw in the villages was ten or twelve tame beavers, that went and came like dogs from the rivers to the cottages, without straggling out of the road. I asked the savages if these animals could live out of the water; and received this answer, that they could live ashore as well as dogs, and that they had kept some of them above a year, without suffering them to go near the rivers: from whence I conclude, that the casuists are out in not ranging ducks, geese, and teals in the number of amphibious animals, as the naturalists are wont to do. I had heard the same story from several Americans before; but being apprehensive that there were different species of beavers, I had a mind to be better informed: and indeed there is a particular kind of them, which the savages call the terrestrial, or land-beaver; but at the same time they tell you, these are of a different species from the amphibious sort; for they make holes or dens in the earth, like rabbits or foxes, and never go near the water, unless it be to drink. They are likewise called by the savages, the lazy or idle kind, as being expelled by the other beavers from the kennels in which these animals are lodged, to the number of eighty. These kennels I mean to describe afterwards; in the mean time I only take occasion to acquaint you, that the idle sort being unwilling to work, are expelled by the others, just as wasps are by bees; and are so teased by them, that they are forced to quit the kennels, which the better and more industrious race huddles up to themselves in the fens. This supine beaver resembles the other sort in its figure, excepting that the hair is rubbed off the back and the belly, which is occasioned by their rubbing against the earth when they return to, or stir out from their holes.

The writers of natural history are very much out, in fancying that the beavers cut off their own testicles, when pursued by the huntsmen; for that which the physicians call castoreum, is not lodged in the testicles, but in a certain bag that nature seems to have formed on purpose for these animals, and this bag they make use of to clear their teeth, after the biting of some gummy shrub. But supposing the testicles to be the proper receptacle of the castor, we must still conceive that it is impossible for a beaver to pull out his testicles, without rending the nerves of the groin, in which they

are seated just by the sharebone. It is manifest that Elian and several other naturalists, were scarce acquainted with beaver-hunting; for had they known any thing of the matter, they would never have talked of the pursuing of these animals, which never go from the side of the pond where the kennels are built; and which dive under water upon the least noise, and return to their dens when the danger is over. If these creatures were but sensible of the reason for which war is declared against them, they would flea themselves alive; for it is the skin only that the huntsmen want, the value of the castor being nothing in comparison with that. A great beaver is twenty-six inches long, from the hind head to the root of the tail. It is about three foot and eight inches round, its head is seven inches long and six broad; its tail is fourteen inches long, and six broad, and about the middle it has the thickness of an inch and two lines. The figure of the tail is oval; the scale with which it is covered, and which performs the office of what the physicians call the epidermis, or scarf-skin, is an irregular hexagon. The beaver carries upon its tail the clay, the earth and other materials of which they make their banks and kennels, or huts, by a wonderful instinct. Its ears are short, round and hollow; its legs are five inches long, its feet six inches and eight lines, and its paws are three inches and a half from the heel to the end of the great toe. Its paws are formed much like a man's hand, and they make use of them in feeding as apes do. The five toes are joined like those of a duck, with a membrane of a slate colour. Its eyes are of the lesser size, in proportion to the bulk of its body, and bear the figure of a rat's eyes. Before its muzzle there are four fore-teeth or cutters, viz. two in each jaw, as in a rabbit, besides which it has sixteen grinders, that is, eight in the upper, and as many in the lower mandible. The cutters are above an inch long, and a quarter of an inch broad, being very strong and sharp like a cutlas; for a beaver assisted by its associates, (if I may so call its fellow-beavers) cuts down trees as big as a hoghead; which I could never have believed, if I had not observed with my own eyes, about twenty trunks of trees cut down in that fashion. A beaver has two lays of hair; one is long, and of a shining black colour, with a grain as big as that of man's hair; the other is fine and smooth, and in winter fifteen lines long: in a word, the last is the finest down in the world. The skin of such a beaver as I have now described, will be two pound weight, but the price varies according to the goodness. In winter and autumn the flesh of a beaver eats very well, if it be roasted. Thus, Sir, I have presented you with an exact description of these reputed amphibious animals which make such structures, that all the art of man can scarce equal. Upon another occasion perhaps I may give you a circumstantial account of their wonderful structure, which I decline at present, because the digression would be too tedious.

To return to my voyage. After our arrival in the bay of Ponteuatamis, we bid adieu to the navigation upon the lakes of Canada; and setting out September 30, arrived October 2, at the foot of the fall of Kakalin, after stemming some little currents in the river of Puants. The next day we accomplished the small land-carriage, and on the 5th arrived before the village of Kikapous, in the neighbourhood of which I encamped the next day, in order to receive intelligence. That village stands upon the brink of a little lake, in which the savages fish great quantities of pikes and gudgeons. I found only thirty or forty men fit for war in the place, for the rest were gone a beaver-hunting some days before. The 7th I reembarked, and rowing hard, made in the evening the little lake of Malominis, where we killed bucks and bustards enough for supper. We went ashore that night, and built huts for ourselves upon a point of land that shoots out; by break of day I went in a canoe to the village, and after an hour's conference

conference with some of the savages, presented them with two rolls of tobacco, and they, by way of acknowledgement, made me a present of two or three sacks of oatmeal: for the sides of the lake are covered with a sort of oats, which grow in tufts, with a tall stalk, and of which the savages reap plentiful crops. The 9th I arrived at the foot of Outagamis fort, where I found but few people; however, they gave me a very kind reception, for after dancing the calumet before the door of my hut, they made me a present of venison and fish. Next day they conveyed me up the river, to the place where their folks were hunting the beavers. The 11th we embarked, and landed the 13th upon the shore of a little lake, where the head of that nation resided. After we had reared up our huts, that general gave me a visit, and enquired which way I intended to move. I made answer, that I was so far from designing to march toward the Nadouessious, his enemies, that I should not come near them by one hundred leagues; and to confirm the innocence of my intentions, I prayed him to send six warriors to accompany me to the Long River, which I designed to trace up to its source. He replied, that he was extremely glad to find that I carried neither arms nor cloaths to the Nadouessious; that he saw I had not the equipage of a *coureur de bois*, but that on the contrary, I had some discovery in my view. At the same time he cautioned me not to venture too far up that noble river, by reason of the multitudes of people that I would find there, though they have no stomach for war: he meant, that some numerous party might surprize me in the night-time. In the mean time, instead of the six warriors that I desired, he gave me ten, who understood the lingua, and knew the country of the Eokoros, with whom his nation had maintained a peace of twenty years standing. I staid two days with this general, during which time he regaled me nobly, and walked about with me to give me the satisfaction of observing the disposure of the cottages of the beaver-hunters; a description of which you may expect in another place; I presented him with a fusée, twelve flint stones, two pounds of powder, four pounds of ball, and a little axe, and I gave each of his two sons a great coat, and a roll of Brasil tobacco. Two of the ten warriors that he gave me, could speak the language of the Outaouas, which I was well pleased with; not that I was a stranger to their own language, for between that and the Algonkin there is a great difference, but in regard that there were several words that puzzled me. My four Outaouas were transported with this little reinforcement, and were then so encouraged, that they told me above four times, that we might venture safely so far as the plantation of the sun. I embarked with this small guard the 16th about noon, and arrived that night at the land-carriage of Ouifconsinc, which we finished in two days, that is, we left the river of Puants, and transported our canoes and baggage to the river Ouifconsinc, which is not above three quarters of a league distant, or thereabouts. I shall say nothing of the river we left, but that it was muddy, full of shelves, and inclosed with a steep coast, marshes, and frightful rocks.

The 19th we embarked upon the river Ouifconsinc, and being favoured by a slack current, arrived in four days at the place where it empties itself into the river Mississipi; which is about half a league broad in that part. The force of the current, and the breadth of that river is much the same as that of the Loire. It lies north-east and south-west, and its sides adorned with meadows, lofty trees and firs. I observed but two islands upon it, though there may be more, which the darkness of the night hid from us as we came down. The 23d we landed upon an island in the river Mississipi, over against the river I spoke of but now, and were in hopes to find some wild-goats there, but had the ill-fortune to find none. The day after we crossed to the other side of the river, sounding it every where, as we had done the day before, and found nine

feet water in the shallowest place. The 2d of November we made the mouth of the Long River, having first stemmed several rapid currents of that river, though it was then at the lowest ebb. In this little passage we killed several wild beeves, which we broiled, and caught several large dabs. On the 3d we entered the mouth of the Long River, which looks like a lake full of bull-rushes; we found in the middle of it a narrow channel, upon which we steered till night, and then lay by to sleep in our canoes. In the morning I enquired of my ten Outagamis, if we had far to sail before we were clear of the rushes, and received this answer, that they had never been in the mouth of that river before, though at the same time they assured me, that about twenty leagues higher the banks of it were clad with wood and meadows. But after all, we did not sail so far, for about ten o'clock next morning the river became pretty narrow; and the shore was covered with lofty trees; and after continuing our course the rest of that day, we had a prospect of meadows now and then. That same night we landed at a point of land, with a design to dress our broiled meat, for at that time we had none fresh. The next day we stopped at the first island we saw, in which we found neither man nor beast; and the evening drawing near, I was unwilling to venture far into it, so we even contented ourselves with the catching of some sorry fish. The 6th a gentle gale sprung up, which wafted us to another island about twelve leagues higher, where we landed. Our passage to this place was very quick, notwithstanding the great calm that always prevails upon the river, which I take to be the least rapid river in the world. But the quickness of the passage was not the only surprisal, for I was amazed that I saw no harts, nor bucks, nor turkies, having met with them all along in the other parts of my discovery. The 7th the same wind drove us to a third island, that lay ten or twelve leagues off the former, which we quitted in the morning. In this third island our savages killed thirty or forty pheasants, which I was not ill pleased with.

The 8th the wind proving unserviceable to us, by reason that it was intercepted by hills covered with firs, we plied our oars: and about two in the afternoon, descried on the left hand large meadows, and some huts at the distance of a quarter of a league from the river. Upon this discovery, our savages and ten of the soldiers jumped upon the shore, and directed their course to the houses, where they found fifty or sixty hunters prepared to receive them, with their bows and arrows. As soon as the hunters heard the voice of the Outagamis, they threw down their arms, and presented the company with some deer that they had just killed, which they likewise helped to carry to my canoes. The benefactors were some of the Eokoros, who had left their villages, and come thither to hunt. I presented them, more out of policy, than acknowledgment, with tobacco, knives and needles, which they could not but admire. Upon this, they repaired with expedition to their villages, and gave their associates to understand, what a good sort of people they had met with; which had so much influence, that the next day towards the evening, there appeared upon the river side above two thousand savages, who fell a dancing as soon as they descried us; thereupon, our Outagamis went ashore, and after a short conference, some of the principal savages embarked on board of our canoes, and so we all steered to the chief village, which we did not reach till midnight. I ordered our huts to be made up on a point of land near a little river, at the distance of a quarter of a league from the village. Though the savages pressed me extremely to lodge in one of their villages, yet none went with them but the Outagamis, and the four Outaouas, who at the same time cautioned the savages not to approach to our camp in the night time. Next day I allowed my soldiers to refresh and rest themselves; and went myself to visit the grandees of this nation, to whom I gave presents of knives, scissars, needles and tobacco. They gave me to understand, that they were

infinitely

infinitely well pleased with our arrival in their country, for that they had heard the savages of other nations speak very honourably of the French. I took leave of them on the 12th, and set out with a convoy of five or six hundred savages, who marched upon the shore, keeping pace with our canoes. We passed by another village that lay to the right hand, and stopped at a third village that was five leagues distant from the first, but did not disembark; for all that I designed, was to make a present to the leading men of the village, from whom I received more Indian corn, and broiled or dried meat, than I occasion for. In fine, I passed from village to village without stopping, unless it were to incamp all night, or to present the savages with some trinkets; and so steered on to the last village, with a design to get some intelligence. As soon as we arrived at the end of this village, the great governor, who indeed was a venerable old gentleman, sent out hunters to bring us good cheer. He informed me, that sixty leagues higher I should meet with the nation of the Essanapes, who waged war with him; that if it had not been for their being at war, he would have given me a convoy to their country; that, however, he meant to give up to me six slaves of that country, which I might carry home, and make use of as I saw occasion; and that in sailing up the river, I had nothing to fear, but the being surprized in the night-time. In fine, after he had instructed me in several very useful circumstances, I immediately made every thing ready for my departure. The commanders of this people acquainted me that they had twelve villages peopled by twenty thousand warriors; that their number was much greater before the war, which they waged at one time with the Nadoneffis, the Panimoha, and the Essanapes. The people are very civil, and so far from a wild savage temper, that they have an air of humanity and sweetness. Their huts are long, and round at the top, not unlike those of our savages, but they are made of reeds and bulrushes, interlaced and cemented with a sort of fat earth. Both the men and women go naked all over excepting their privities. The women are not so handsome as those who live upon the lakes of Canada. There seems to be something of government and subordination among this people; and they have their houses fortified with the branches of trees, and fascines strengthened with fat earth.

The 21st we embarked at the break of day, and landed that night in an island covered with stones and gravels, having passed by another at which I would not put in, because I would not slight the opportunity of the wind, which then stood very fair. Next day the wind standing equally fair, we set out and continued our course all that day, and the following night; for the six Essanapes informed us, that the river was clean, and free from rocks and beds of sand. The 23d we landed early in the morning on the right side of the river, in order to careen one of our boats that sprung a leak. While that was doing, we dressed some venison that had been presented me by the commander of the last village of the Eokoros; and the adjacent country being replenished with woods, the savages of our company went a shooting in the forests; but they saw nothing but small fowls, that they did not think fit to shoot at. As soon as we re-embarked, the wind fell all of a sudden, and so we were forced to ply the oars; but most of the crew having slept but little the night before, they rowed but very faintly, which obliged me to put in at a great island two leagues higher; the six Essanapes slaves having informed me, that this island afforded great plenty of hares, which I found to be true. These animals had a lucky instinct in taking shelter in this island, for there the woods are so thick, that we were forced to set fire to several places, before we could dislodge them.

Having made an end of our game, my soldiers fed heartily, and thereupon fell so found asleep that I could scarce get them waked upon a false alarm, occasioned by a herd

herd of wolves that made a noise among the thickets upon the continent. We re-embarked next day at ten o'clock in the morning, and did not run above twelve leagues in two days, by reason that the savages of our company would needs walk along the river side with their guns, to shoot geese and ducks; in which they had very good success. After that we encamped just by the mouth of a little river on the right hand, and the Essanapes slaves gave me notice, that the first of their villages was not above sixteen or eighteen leagues off. Upon this information, I sent, by the advice of the savages of our company, two of the slaves to give notice of our arrival. The 26th we rowed briskly, in hopes to reach the first village that day; but being retarded by the huge quantities of floating wood that we met in several places, we were forced to continue all night in our canoes. The 27th about ten or eleven o'clock we approached to the village, and after putting up the great calumet of peace upon the prow of our canoes, lay upon our oars.

Upon our first appearance, three or four hundred Essanapes came running to the shore, and, after dancing just over against us, invited us ashore. As soon as we came near the shore, they began to jump into our canoes; but I gave them to know by the four Essanapes slaves, that I desired they should retire, which they did immediately. Then I landed, being accompanied with the savages of our company, namely, the Outagamis and the Outaouas, and with twenty soldiers. At the same time I gave orders to my serjeants to land and post centries. As we stood upon the shore, all the Essanapes prostrated themselves three or four times before us, with their hands upon their foreheads; after which we were conveyed to the village with such acclamations of joy as perfectly stunned us. Upon our arrival at the gate, our conductors stopped us, till the governor, a man of fifty years of age, marched out with five or six hundred men armed with bows and arrows. The Outagamis of my company perceiving this, charged them with insolence in receiving strangers with their arms about them, and called out in the Eokoros language, that they ought to lay down their arms. But the Essanapes slaves that I had sent in the day before, came up to me, and gave me to understand, that it was their custom to stand to their arms on such occasions, and that there was no danger in the case. However, the obstinate Outagamis obliged us to retire immediately to our canoes: upon which the leading officer, and the whole battalion, flung their bows and arrows aside all on a sudden. Then I returned, and our whole company entered the village with their fuses in their hands, which the savages admired mightily. The leader of the savages conducted us to a great hut, which looked as if nobody had lived in it before. When I and my twenty soldiers had entered the place, they stopped the Outagamis, affirming, that they did not deserve the privilege of entering within the cottage of peace, since they had endeavoured to create a difference, and occasion a war between us and the Essanapes. In the mean time I ordered my men to open the door, and to call out to the Outagamis, that they should offer no manner of injury: but the Outagamis instead of coming in, pressed me to return with all expedition to the canoes, which accordingly I did without loss of time, and carried with me the four Essanapes slaves, in order to leave them at the first village we came to. We had no sooner embarked, than the two other slaves came to acquaint me that the governor would stop me in his river; but the Outagamis made answer, that he could not do that without throwing a mountain into it; in fine, we did not stand to dispute the matter; and though it was then late, we rowed straight to the next village, which lay about three leagues off. During the time of this passage, I used the precaution of taking from my six slaves an exact information of the constitution of their country, and particularly of the principal village. They having assured me, that the capital canton was seated upon
a fort

fort of a lake, I took up a resolution of not stopping at the other villages, where I should only lose time, and lavish my tobacco, and steering directly to the metropolitan, in order to complain to their generalissimo.

We arrived at the capital canton on the 3d of November, and there met with a very honourable reception. The Outagamis of our company complained of the affront they had received; but the head general being already informed of the matter, made answer, that they ought to have carried off the governor or leading officer, and brought him along with them. In passing from the first village to this, we run fifty leagues, and were followed by a procession of people, that were much more sociable than the governor that offered us that affront. After our men had fitted up our huts at the distance of a cannon-shot from the village; we went in a joint body with the Outagamis and the Outaouas, to the cacique of that nation; and in the mean time the Eflanapes slaves were brought before him by ten of my soldiers. I was actually in the presence of this petty King, when these slaves spent half an hour in prostrating themselves several times before him. I made him a present of tobacco, knives, needles, scissars, two firelocks with flints, some hooks, and a very pretty cutlas. He was better satisfied with these trifling things, which he had never seen before, than I could have been with a plentiful fortune. He testified his acknowledgment of the gift, by a counter-present that was more solid, though not much more valuable, as consisting of pease, beans, harts, roe-bucks, geese and ducks, of which he sent great plenty to our camp; and indeed, we were extremely well satisfied with such a seasonable present. He gave me to know, that, since I designed to visit the Gnacsitaires, he would give me a convoy of two or three hundred men: that the Gnacsitaires were a very honest sort of people; and that both they and his people were linked by a common interest in guarding of the Mozeemlek, which were a turbulent and warlike nation. He added, that the nation last mentioned were very numerous; that they never took the field without twenty thousand men at least: that to repress the incursions and insults of that dangerous enemy, the Gnacsitaires and his nation had maintained a confederacy for six-and-twenty years; and that his allies (the Gnacsitaires) were forced to take up their habitation in islands, where the enemy cannot reach them. I was glad to accept of his convoy, and returned him many thanks. I asked four pirogues of him, which he granted very frankly, allowing me to pick and chuse that number out of fifty. Having thus concerted my measures, I was resolved to lose no time; and with that view ordered my carpenters to plane the pirogues; by which they were thinner and lighter by one half. The poor innocent people of this country could not conceive how we worked with an axe; every stroke we gave they cried out, as if they had seen some new prodigy; nay, the firing of pistols could not divert them from that amazement, though they were equally strangers both to the pistol and the axe. As soon as my pirogues were got ready, I left my canoes with the governor or prince, and begged of him that they might remain untouched by any body; in which point he was very faithful to me.

I cannot but acquaint you in this place, that the higher I went up the river, I met with more discretion from the savages. But in the mean time I must not take leave of the last village, without giving some account of it. It is bigger than all the rest, and is the residence of the great commander or generalissimo, whose apartment is built by itself towards the side of the lake, and surrounded with fifty other apartments, in which all his relations are lodged. When he walks, his way is strewn with the leaves of trees; but commonly he is carried by six slaves. His royal robes are of the same magnificence with those of the commander of the Okoros: for he is naked all over, excepting

excepting his lower parts, which are covered with a large scarf made of the bark of trees. The large extent of this village might justly entitle it to the name of a city. The houses are built almost like ovens, but they are large and high ; and most of them are of reeds cemented with fat earth. The day before I left this place, as I was walking about, I saw thirty or forty women running at full speed ; and being surprized with the spectacle, spoke to the Outagamis to order my four slaves to see what the matter was ; for these slaves were my only interpreters in this unknown country. Accordingly they brought me word, that it was some new married women, who were running to receive the soul of an old fellow that lay dying. From thence I concluded, that the people were Pythagoreans : and upon that apprehension, asked them how they came to eat animals, into which their souls might be transfused ; but they made answer, that the transmigration of souls is always confined to the respective species, so that the soul of a man cannot enter into a fowl, as that of a fowl cannot be lodged in a quadruped, and so on. The Okoros, of both sexes, are fully as handsome and as clever, as this people.

December the 4th, I took leave of this village, having ten soldiers on board of my pirogue, besides the ten Oumamis, the four Outaouas, and the four Essanapes slaves, that I have mentioned so often. Here ended the credit and authority of the calumet of peace, for the Gnacsitares are not acquainted with that symbol of concord. The first day we had enough to do to run six or seven leagues, by reason of the bulrushes with which the lake is encumbered. The two following days we sailed twenty leagues. The 4th day a west-north-west wind surprized us with such a boisterous violence, that we were forced to put ashore, and lay two days upon a sandy ground, where we were in danger of starving for hunger and cold ; for the country was so barren, that we could not find a chip of wood wherewith to warm ourselves, or to dress our victuals ; and as far as our eye could reach, there was nothing to be seen but fens covered with reeds and clay, and naked fields. Having endured this hardship we set out again, and rowed to a little island, upon which we encamped, but found nothing there but green fields ; however, to make some amends, we fished up great numbers of little trouts, upon which we fed very heartily. At last, after sailing six days more, we arrived at the point, or lands-end, of that island which you see marked in my map with a flower-de-luce. It was then the 19th day of December, and we had not yet felt all the rigorous hardships of the cold. As soon as I had landed and fitted up my tents or huts, I detached my Essanapes slaves to the first of the three villages that lay before us ; for I had avoided stopping at some villages in an island upon which we coasted in the night-time. The slaves returned in a great alarm, occasioned by the unfavourable answer they received from the Gnacsitares, who took us for Spaniards, and were angry with them for conducting us to their country. I shall not be minute in every particular that happened, for fear of tiring your patience. It is sufficient to acquaint you, that upon the report of my slaves, I immediately embarked, and posted myself in another island that lay in the middle between the great island and the continent ; but I did not suffer the Essanapes to be in my camp. In the mean time the Gnacsitares sent expeditious couriers to the people that live eighty leagues to the southward of them, to desire they would send some of their number to examine us ; for that people were supposed to be well acquainted with the Spaniards of New Mexico. The length of the journey did not discourage them, for they came as cheerfully as if it had been upon a national concern ; and after taking a view of our clothes, our swords, our fuzes, our air, complexion, and manner of speech, were forced to own that we were not true Spaniards. These considerations, joined to the account I gave them of the reasons upon which I undertook the voyage, of the war we were engaged in against Spain,

Spain, and of the country to the eastward that we possessed ; these, I say, had so much influence, as to undeceive them. Then they invited me to encamp in their island, and brought me a sort of grain not unlike our lentils, that grows plentifully in that country. I thanked them for their invitation, and told them, that I would not be obliged to distrust them, nor give them any occasion to distrust me. However, I crossed with my savages and ten soldiers well armed ; and after breaking the ice in certain places (for it had frozen hard for ten or twelve days,) I landed within two leagues of one of their villages, to which I walked up by land. It is needless to mention the particulars of the ceremony with which I was received, it being the same with what I described upon other occasions ; I shall only take occasion to acquaint you, that my presents made a wonderful impression upon the minds of these people, whom I shall call a rascally rabble, though at the same time they are the politest nation I have yet seen in this country. Their governor bears the figure of a king more than any of the other commanders of the savages. He has an absolute dominion over all the villages which are described in my map. In this and the other islands I saw large parks, or inclosures, stocked with wild beeves for the use of the people. I had an interview for two hours together with the governor, or the cacique ; and almost our whole conference related to the Spaniards of New Mexico, who, as he assured me, were not distant from his country above eighty tazous, each of which is three leagues. I must own indeed, I was as curious upon this head as he was ; and I wanted an account of the Spaniards from him, as much as he did from me ; in fine, we reciprocally informed one another of a great many particulars relating to that head. He requested me to accept of a great house that was prepared for me ; and his first piece of civility consisted in calling in a great many girls, and pressing me and my retinue to serve ourselves. Had this temptation been thrown in our way at a more seasonable time it had proved irresistible ; but it was not an agreeable mess for passengers that were enfeebled by labour and want. *Sine Cerere et Baccho friget Venus.* After he made us such a civil proffer, the savages, upon my instance, represented to him, that my detachment expected me at a certain hour, and that if I staid longer, they would be in pain for me. This adventure happened on the 7th of January.

Two days after, the cacick came to see me, and brought with him four hundred of his own subjects, and four Mozeemlek savages, whom I took for Spaniards. My mistake was occasioned by the great difference between these two American nations ; for, the Mozeemlek savages were clothed, they had a thick bushy beard, and their hair hung down under their ears ; their complexion was swarthy, their address was civil and submissive, their mien grave, and their carriage engaging. Upon these considerations I could not imagine that they were savages, though after all I found myself mistaken. These four slaves gave me a description of their country, which the Gnacsitares represented by way of a map upon a deer's skin ; as you see it drawn in this map. Their villages stand upon a river that springs out of a ridge of mountains, from which the long river likewise derives its source, there being a great many brooks there which by a joint confluence form the river. When the Gnacsitares have a mind to hunt wild beeves, they set out in pirogues, which they make use of till they come to the cross marked thus (+) in the map, at the confluence of two little rivers. The hunting of the wild bulls, with which all the valleys are covered in summer, is sometimes the occasion of a cruel war : for the other cross (+) which you see in the map, is one of the boundaries or limits of Mozeemlek ; and if either of these two nations advances but a little beyond their limits, it gives rise to a bloody engagement. The mountains I spoke of but now, are six leagues broad, and so high that one must cast an infinity of

windings and turnings before he can cross them. Bears and wild beasts are their only inhabitants.

The Mozeemlek nation is numerous and puissant. The four slaves of that country informed me, that at the distance of one hundred and fifty leagues from the place where I then was, their principal river empties itself into a salt lake of three hundred leagues in circumference, the mouth of which is about two leagues broad: that the lower part of that river is adorned with six noble cities, surrounded with stone cemented with fat earth: that the houses of these cities have no roofs, but are open above like a platform, as you see them drawn in the map: that besides the above mentioned cities, there were above an hundred towns, great and small, round that sort of sea, upon which they navigate with such boats as you see drawn in the map: that the people of that country made stuffs, copper, axes, and several other manufactures, which the Outagamis and my other interpreters could not give me to understand, as being altogether unacquainted with such things: that their government was despotic, and lodged in the hands of one great head, to whom the rest paid a trembling submission: that the people upon that lake call themselves Tahuglauh, and are as numerous as the leaves of trees, (such is the expression that the savages used for an hyperbole :) that the Mozeemlek people supply the cities or towns of the Tahuglauh with great numbers of little calves which they take upon the above-mentioned mountains; and, that the Tahuglauh make use of these calves for several ends; for, they not only eat their flesh, but bring them up to labour, and make cloaths, boots, &c. of their skins. They added, that it was their misfortune to be taken prisoners by the Gnacitares in the war which had lasted for eighteen years; but, that they hoped a peace would be speedily concluded, upon which the prisoners would be exchanged, pursuant to the usual custom. They gloried in the possession of a greater measure of reason than the Gnacitares could pretend to, to whom they allow no more than the figure of a man; for they look upon them as beasts otherwise. To my mind, their notion upon this head is not so very extravagant; for I observed so much honour and politeness in the conversation of these four slaves, that I thought I had to do with Europeans: but, after all, I must confess that the Gnacitares are the most tractable nation I met with among all the savages. One of the four Mozeemlek slaves had a reddish sort of a copper medal hanging upon his neck, [from the figure it appears to be Japanese.] I had it melted by M. De Ponti's gunsmith, who understood something of metals; but it became thereupon heavier, and deeper coloured, and withal somewhat tractable. I desired the slaves to give me a circumstantial account of these medals; and accordingly they gave me to understand, that they are made by the Tahuglauh, who are excellent artizans, and put a great value upon such medals. I could pump nothing farther out of them, with relation to the country, commerce and customs of that remote nation. All they could say was, that the great river of that nation runs all along westward, and that the salt lake into which it falls, is three hundred leagues in circumference, and thirty in breadth, its mouth stretching a great way to the southward. I would fain have satisfied my curiosity in being an eye-witness of the manners and customs of the Tahuglauh; but that being impracticable, I was forced to be instructed at second hand by these Mozeemlek slaves; who assured me, upon the faith of a savage, that the Tahuglauh wear their beards two fingers breadth long: that their garments reach down to their knees; that they cover their heads with a sharp pointed cap; that they always wear a long stick or cane in their hands, which is tipped, not unlike what we use in Europe; that they wear a sort of boots upon their legs which reach up to the knee; that their women never shew themselves, which perhaps proceeds from the

same principle that prevails in Italy and Spain; and, in fine, that this people are always at war with the puissant nations that are seated in the neighbourhood of the lake; but withal, that they never disquiet the strolling nations that fall in their way, by reason of their weakness: an admirable lesson for some princes in the world, who are so much intent upon the making use of the strongest hand.

This was all I could gather upon that subject. My curiosity prompted me to desire a more particular account; but unluckily I wanted a good interpreter; and having to do with several persons that did not well understand themselves, I could make nothing of their incoherent fustian. I presented the poor miserable slaves with something in proportion to the custom of that country, and endeavoured to persuade them to go with me to Canada, by making them such offers as in their esteem would appear like mountains of gold; but the love they had for their country stifled all persuasions; so true it is, that nature reduced to its just limits cares but little for riches.

In the mean time it began to thaw, and the wind chopped about to the south-west; upon which I gave notice to the great cacique of the Gnacsitares, that I had a mind to return to Canada. Upon that occasion I repeated my presents; in compensation of which, my pirogues were stowed with beef as full as they could hold. This done, I embarked, and crossed over from the little island to the continent, where I fixed a great long pole, with the arms of France done upon a plate of lead. I set out the 26th of January, and arrived safe on the 5th of February in the country of the Essanapes. We had much more pleasure in sailing down the river than we had in going up; for we had the agreeable diversion of seeing several hunters shooting the water-fowl, that are plentiful on that river. You must know, that the stream of the long river is all along very slack and easy, abating for about three leagues between the fourteenth and fifteenth village; for there indeed its current may be called rapid. The channel is so straight, that it scarce winds at all from the head to the lake. It is true it is not very pleasant; for most of its banks have a dismal prospect, and the water itself has an ugly taste; but then its usefulness atones for such inconveniencies; for, it is navigable with the greatest ease, and will bear barks of fifty ton, till you come to that place which is marked with a fleur-de-lis in the map, and where I put up the post that my soldiers christened La Hontan's Limit. March 2, I arrived in the Mississipi, which was then much deeper and more rapid than before, by reason of the rains and land-floods. To save the labour of rowing; we then left our boats to the current, and arrived on the 10th in the island of Rencontres, which took its name from the defeat of four hundred Iroquese accomplished there by three hundred Nadoueffis. The story of the encounter is briefly this: a party of four hundred Iroquese having a mind to surprise a certain people in the neighbourhood of the Otentas (of whom more anon) marched to the country of the Illinese, where they built canoes, and were furnished with provisions. After that they embarked upon the river Mississipi, and were discovered by another little fleet that was sailing down the other side of the same river. The Iroquese crossed over immediately to that island, which is since called Aux Rencontres. The Nadoueffis, i. e. the other little fleet, being suspicious of some ill design, without knowing what people they were, (for they had no knowledge of the Iroquese but by hear-say); upon this suspicion, I say, they tugged hard to come up with them. The two armies posted themselves upon the point of the island, where the two crosses are put down in the map; and as soon as the Nadoueffis came in sight, the Iroquese cried out in the Illinese language, Who are ye? to which the Nadoueffis answered, Some body: and putting the like question to the Iroquese, received the same answer. Then the Iroquese put this question to them, Where are you going? To hunt beeves, replied the Nadoueffis.

But,

But, pray, says the Nadoueffis, what is your business? To hunt men, replied the Iroquese. It is well, says the Nadoueffis, we are men, and so you need go no farther. Upon this challenge the two parties disembarked, and the leader of the Nadoueffis cut his canoes to pieces; and after representing to his warriors that they behoved either to conquer or die, marched up to the Iroquese; who received them at first onset with a cloud of arrows: but the Nadoueffis having stood their first discharge, which killed them eighty men, fell in upon them with their clubs in their hands, before the others could charge again; and so routed them entirely. This engagement lasted for two hours, and was so hot, that two hundred and sixty Iroquese fell upon the spot, and the rest were all taken prisoners. Some of the Iroquese indeed attempted to make their escape after the action was over; but the victorious general sent ten or twelve of his men to pursue them in one of the canoes that he had taken; and accordingly they were all overtaken and drowned. The Nadoueffis having obtained this victory, cut off the noses and ears of two of the cleverest prisoners; and supplying them with fuses, powder and ball, gave them the liberty of returning to their own country, in order to give their countrymen to understand that they ought not to employ women to hunt after men any longer.

The 12th we arrived at the village of the Otentas, where we took in a plentiful provision of Turkey corn, of which these people have great store. They informed us, that their river was pretty rapid, and took its rise from the neighbouring mountains; and that the upper part of it was adorned with several villages inhabited by the people called Panimaha, Paneassa, and Panetonka. But considering that I was straitened for time, and that I saw no probability of learning what I wanted to know with reference to the Spaniards, I took leave of them the next day, which was the 13th, and in four days time, by the help of the current and our oars, made the river of the Missouri. This done, we run up against the stream of that river, which was at least as rapid as the Mississippi was at that time; and arrived on the 18th at the first village of the Missouri, where I only stopped to make the people some presents that procured me a hundred turkeys, with which that people are wonderfully well stocked. After that, we rowed hard against the stream, and landed next night near the second village. As soon as I arrived, I detached a serjeant with ten soldiers to convoy the Outagamis to the village, while the rest of my crew were busied in fitting up our huts and unloading our canoes. It happened unluckily that neither the soldiers nor the Outagamis could make the savages understand them; and the latter were just ready to fall upon them, when an old fellow cried out, that the strangers were not without more company, for that he had discovered our huts and canoes. Upon this, the soldiers and the Outagamis retired in a great consternation, and advised me to keep a strong guard all night. About two o'clock in the morning two men approached to our little camp, and called, in Illinese, that they wanted an interview; upon which the Outagamis, being extremely well satisfied that there was somebody among them who could understand what they said, replied in Illinese, that they should be very welcome as soon as the sun appeared in the horizon. Nevertheless, the Outagamis resented the former affront so much, that they importuned me all night long to set fire to the village, and put all the scoundrel inhabitants to the sword. I made answer to them, that it was our business to be wiser than they, and to bend our thoughts, not upon a fruitless revenge, but upon the discovery that we were then in quest of. At the break of day the two adventurers of the night came up to us, and after putting interrogatories to us for the space of two hours, invited us to come up to their village. The Outagamis replied, that the head or governor of their nation ought to have saluted us sooner; and this obliged

obliged them to go back to give him notice. After that we saw nobody for three hours ; but at last, when our impatience was just beginning to boil, we perceived the governor, who accosted us in a trembling posture. He was accompanied with some of his own men, who were loaded with broiled or dried meat, sacks of Turkey or Indian corn, dried raisins, and some speckled or party-coloured buck-skins. In consideration of this present, I made them another of less consequence. Then I brought on a conference between the Outagamis of my company and the two night-messengers, in order to make some discovery of the nature of the country ; but they still stopped our mouths with this answer, that they knew nothing of the matter, but that the other nations that lived higher up, were able to inform us. Had I been of the same mind with the Outagamis, we had done noble exploits in this place ; but I considered that it was my business to purchase the knowledge of several things, which I could not obtain by burning the village. To be short, we re-embarked that same day, about two o'clock in the afternoon, and rowed about four leagues up the river, where we made the river of the Osages, and encamped by its mouth. That night we had several false alarms from the wild beeves, upon which we made sufficient reprisals afterwards ; for the next day we killed many of them notwithstanding that it rained so heavily that we could scarce stir out of our huts. Towards the evening, when the rain was over, and while we were transporting two or three of these beeves to our little camp, we espied an army of the savages upon a full march towards us. Upon that, my men began to entrench themselves, and to unload their pieces with worms, in order to charge them afresh ; but one of the pieces happening to go off, the whole body of the enemy disappeared, some straggling one way and some another ; for these people were upon the same foot with the nations that live upon the Long River, forasmuch as neither of them had ever seen or handled fire-arms. However, this adventure moved the Outagamis so much, that to satisfy them, I was obliged to re-embark that very night, and return the same way that I came. Towards midnight we came before a village, and kept a profound silence till day-break, at which time we rowed up to their fort ; and upon our entering there, and discharging our pieces in the air, the women, children, and superannuated men were put into such a consternation, that they run from place to place calling out for mercy. You must know, all their warriors were abroad, and it was a body of them that offered to attack us the day before. The Outagamis perceiving the consternation of the women and children, called out, that they behoved to depart the village, and that the women should have time to take up their children. Upon that the whole crew turned out, and we set fire to the village on all sides. This done, we pursued our course down that rapid river, and entered the river Mississipi on the 25th, early in the morning ; the 26th, about three o'clock in the afternoon, we descried three or four hundred savages employed in the hunting of beeves, which swarmed in all the meads to the westward. As soon as the hunters spied us, they made a sign that we should make towards them. Being ignorant who, or how numerous they were, we made a halt at first, but at last we put in about a musket-shot above them, calling out to them that they should not approach to us in a body. Upon that, four of their number came up to us with a smiling countenance, and gave us to know, in the Illinese language, that they were Akanfas. We could not but credit their report, for they had knives and scissars hanging upon their necks, and little axes about them, which the Illinese present them with when they meet ; in fine, being assured that they were of that nation, which M. de la Salle and several other Frenchmen were intimately acquainted with, we landed at the same place ; and they entertained us first with dancing and singing, and then with all sorts of meat. The next day they shewed us a crocodile that

they had knocked on the head two days before, by a stratagem that you'll find described in another place : after that they gave us the diversion of a hunting-match ; for it is customary with them, when they mean to divert themselves, to catch the beebes by the different methods laid down in this cut. I put some questions to them relating to the Spaniards, but they could not resolve them. All that I learned from them was, that the Missouris and the Osages are numerous and mischievous nations, equally void both of courage and honesty ; that their countries were watered with very great rivers ; and, in a word, were too good for them.

After we had spent two days with them, we pursued our voyage to the river Ouabach, taking care to watch the crocodiles very narrowly, of which they had told us incredible stories. The next day we entered the mouth of that river, and sounded it, to try the truth of what the savages reported of its depth. In effect, we found there three fathom and a half water ; but the savages of our company alledged, that it was more swelled than usually. They all agreed, that it was navigable an hundred leagues up, and I wished heartily, that my time had allowed me to run up to its source ; but that being unseasonable, I sailed up against the stream, till we came to the river of the Illinese, which we made on the 9th of April with some difficulty, for the wind was against us the first two days, and the currents were very rapid.

All I can say of the river Mississippi, now that I am to take leave of it, is, that its narrowest part is half a league over, and the shallowest is a fathom and a half deep ; and that according to the information of the savages, its stream is pretty gentle for seven or eight months of the year. As for shelves or banks of sand, I met with none in it. It is full of isles which look like groves, by reason of the great plenty of trees, and in the verdant season of the year afford a very agreeable prospect. Its banks are woods, meadows and hills. I cannot be positive, whether it winds much in other places ; but as far as I could see, its course is very different from that of our rivers in France ; for I must tell you, by the way, that all the rivers of America run pretty straight.

The river of the Illinese is intitled to riches, by virtue of the benign climate, and of the great quantity of deer, roe-bucks, and turkies that feed upon its banks ; not to mention several other beasts and fowls, a description of which would require an entire volume. If you saw but my journal, you would be sick of the tedious particulars of our daily adventures both in hunting and fishing divers species of animals, and in encounters with the savages. In short, the last thing I shall mention of this river, is, that the banks are replenished with an infinity of fruit-trees, which we saw in a dismal condition, as being stripped of their verdure ; and that among these fruit-trees there are many vines which bear most beautiful clusters of very large grapes. I ate some of these grapes dried in the sun, which had a most delicious taste. The beavers are as unfrequent in this, as in the long river, where I saw nothing but otters, of which the people make furs for the winter.

I set out from the Illinese river on the 10th of April, and by the help of a west-south-west wind, arrived in six days at the fort of Crevecoeur, where I met with M. de Tonti, who received me with all imaginable civility, and is justly respected and honoured by the Iroquese. I stayed three days in this fort, where there were thirty coureurs de bois that traded with the Illinese. The 20th I arrived at the village of the Illinese ; and to lessen the drudgery of a great land-carriage of twelve great leagues, engaged four hundred men to transport our baggage, which they did in the space of four days, being encouraged by a bribe of a great roll of Brazil tobacco, an hundred pound weight of powder, two hundred weight of ball, and some arms, which I gave to the most considerable

nable men of their number. The 24th I arrived at Chekakou, where my Outagamis took leave of me in order to return to their own country, being very well satisfied with a present I made them of some fuses, and some pistols. The 25th I re-embarked, and by rowing hard in a calm, made the river of the Oumamis on the 28th, there I met four hundred warriors, upon the very same place where M. de la Salle had formerly built a fort. These warriors were then employed in burning three Iroquese, who, as they said, deserved the punishment; and invited us to share in the pleasure of the show: for the savages take it very ill if one refuses the diversion of such real tragedies. The tragical spectacle made me shrink, for the poor wretches were put to inconceivable torture; and upon that I resolved to re-embark with all expedition; alledging for an apology, that my men had great store of brandy with them, and would certainly make themselves drunk, in solemnising their victory, upon which they would be apt to commit disorders, that I could not possibly prevent. Accordingly I went immediately on board, and after coasting along the lake, crossed the bay de l'Ours, and landed at Missilimakinac the 22d.

I am informed by the Sieur de S. Pierre de Rapantigni, who travelled from Quebec hither upon the ice, that M. de Denonville has taken up a resolution of making a peace with the Iroquese, in which he means to comprehend the other nations that are his allies; and with that view had given notice to his allies, that they should not infest the Iroquese. He acquaints me further, that M. de Denonville has sent orders to the governor of this place, to persuade the *Rat*, (one of the commanders of the Hurons,) to go down to the colony, with a design to have him hanged; and that the savage general being aware of the design, has made a public declaration, that he will go thither on purpose to defy him. Accordingly, he designs to set out to-morrow with a great body of Outaouas, and some coureurs de bois, under the command of M. Dulhut. As for the soldiers of my detachment, I have dispersed them in several canoes among the savages and the coureurs de bois; but having some business to adjust in this place, I am obliged to tarry myself seven or eight days longer.

This, Sir, is the true account of my little voyage. I have related nothing but the essential circumstances; choosing to overlook the rest, which are so trifling as to be unworthy of your curiosity. As for the Illinese lake, it is three hundred leagues in circumference, as you may see by the scale of leagues upon the map. It is seated in an admirable climate; its banks are cloathed with fine and tall trees, and have but few meads. The river of the Oumamis is not worth your regard. The bay de l'Ours qui dort, is of an indifferent large extent, and receives the river upon which the Outaouas are wont to hunt beavers every third-year; in short, it has neither shelves, rocks, nor banks of sand. The land which bounds it on the south side, is replenished with roebucks, deer, and turkeys. Farwell, good Sir, and assure yourself, that it will always be a sensible pleasure to me, to amuse you with an account of the greatest curiosities I meet with.

But now, Sir, I hope you will not take it ill, that the relation I here give you, is only an abridgment of my voyage; for, in earnest, to be minute upon every particular curiosity, would require more time and leisure than I can spare. I have here sent you a view of the substantial part, and shall afterwards hope for an opportunity of recounting to you by word of mouth, an infinity of adventures, rencounters, and observations, which may call up the reflecting faculty of thinking men. My own thought is too superficial to philosophize upon the origin, the belief, the manners and customs of so many savages, or to make any advances with reference to the extent of this continent to the westward. I have contented myself with offering some thoughts upon the causes

of the bad success of the discoveries, that several experienced men have attempted in America, both by sea and land: and I flatter myself, that my thoughts upon that head are just. The fresh instances of M. de la Salle, and several other unlucky discoverers, may afford a sufficient and seasonable caution to those, who for the future shall undertake to discover all the unknown countries of this new world. It is not every one that is qualified for such an enterprize, *non licet omnibus adire Corinthum*. It were an easy matter to trace the utmost limits of the country that lies to the west of Canada, provided it be gone about in a proper method. In the first place, instead of canoes, I would have such adventurers to make use of certain sloops of a peculiar structure, which might draw but little water, and be portable, as being made of light wood, and withal carry thirteen men, with thirty-five or forty hundred weight of stowage, and be able to bear the shock of the waves in the great lakes. Courage, health, and vigilance, are not sufficient of themselves to qualify a man for such adventures; he ought to be possessed of other talents, which are rarely met with in one and the same person. The conduct of the three hundred men that accompanied me upon this discovery, gave me a great deal of trouble. It requires a large stock of industry and patience to keep such a company up to their duty. Sedition, mutinies, quarrels, and an infinity of disorders frequently take place among those, who being in remote and solitary places, think they have a right of using force against their superiors. One must dissemble, and even shut his eyes upon occasion, lest the growing evil should be inflamed: the gentlest methods are the surest for him that commands in chief; and if any mutiny or seditious plot is in view, it is the business of the inferior officers to stifle it, by persuading the mutineers that the discovery of such things to the commanding officer would create a great deal of uneasiness. So, the chief officer must still make as if he were ignorant of what passes, unless it be, that the flame breaks out in his presence; then indeed he lies under an indispensable obligation of inflicting speedy and private punishment, without his prudence directs him to put off the execution, upon an apprehension of some pernicious consequences that may ensue thereupon. In such voyages he must overlook a thousand things, which upon other occasions he has all reason to punish. He must counterfeit a downright ignorance of their intrigues with the she-savages, of their quarrels among themselves, of their negligence in not mounting the guard, and not observing the other points of duty; in a word, he must pretend to know nothing of an infinity of such disorders, as have no direct tendency to a revolt. He ought to use the precaution of singling out a spy in his little army, and reward him handsomely for a dexterous intelligence as to all that happens; to the end that he may remedy the growing disorders either directly or indirectly. This spy may, by good management, and due secrecy, find out the ringleader of a club or cabal; and when the commanding officer has received such satisfaction upon the matter, that there is no room left to doubt of the criminal's demerit, it will then be very convenient to make away with him, and that with such management, that nobody should know what became of him.

Farther, he ought to give them tobacco and brandy now and then, to ask their advice upon some occasions, to fatigue them as little as possible, to call them up to dance and make merry, and at the same time to exhort them to live in a good understanding with one another. The best topic he can make use of for enforcing their duty, is religion, and the honour of their country, and this he ought to descant upon himself; for though I have a great deal of faith in the power of the clergy, yet I know that sort of men does more harm than good in voyages of this nature; and for that reason I would choose to be without their company. The person who undertakes to go upon a discovery

covery ought to be very nice and cautious in the choice of his men; for every one is not fit for his business. His men ought to be between thirty and forty years of age, of a dry constitution, of a peaceable temper, of an active and bold spirit, and inured to the fatigues of voyages. The whole retinue must consist of three hundred men; and of that number there must be some ship-carpenters, gunsmiths, and sawyers, with all their tools; besides huntsmen and fishermen, with their tackling. You must likewise have surgeons among them; but their chest ought to contain nothing but razors, lancets, external medicines for wounds, orvietan and fenna. All the men of the detachment ought to be provided with buff-coats and boots to turn the arrows; for, as I intimated above, the savages of the unknown countries are strangers to fire-arms. They must be armed with a double-barrelled gun, a double-barrelled pistol, and a good long sword. The commanding officer must take care to provide a sufficient quantity of the skins of deer, elks, and beeves, in order to be sewed together, and hung round his camps upon certain stakes fixed at convenient distances from one another. I had as many as would go round a square of thirty feet every way, for each skin being five feet deep, and almost four feet broad, I made two pieces of eight skins a-piece, which were raised and extended in a minute. Besides these, he ought to carry with him some pot-guns of eight foot in length, and six in breadth; with two hand-mills for grinding the Indian corn, nails of all sizes, pickaxes, spades, hatchets, hooks, soap, and cotton to make candles of; above all, he must not forget to take in good store of powder, brandy, Brasil tobacco, and such things as he must present to the savages whose country he discovers; add to this cargo, an astrolabe, a semicircle, several sea-compasses, some simple and some of variation, a loadstone, two large watches of three inches diameter; pencils, colours, and paper for making journals and maps, for the designing of land-creatures, fowl, fish, trees, plants, grain, and, in a word, whatever seems worthy of his curiosity. I would likewise advise him to carry with him some trumpeters and fiddlers, both for animating his retinue, and raising the admiration of the savages. With this equipage, Sir, a man of sense, conduct, and action, I mean, a man that is vigilant, prudent, cautious, and above all, patient and moderate, and qualified for contriving expedients upon all occasions; a man, I say, thus qualified, and thus fitted out, may boldly go to all the countries that lie to the west of Canada, without any apprehension of danger. As for my own part, I seriously declare, that if I were possessed of all these qualities, I should esteem it my happiness to be employed upon such an enterprise, both for the glory of His Majesty, and my own satisfaction: for the continued diversity of objects did so charm me in my voyages, that I had scarce time to reflect upon the fatigue and trouble that I underwent. I am, Sir,

Yours, &c.

LETTER XVII.

Dated at Quebec, Sept. 28, 1689.

The Author sets out from Missilimakinac to the Colony, and describes the Country, Rivers, and Passes, that he saw by the Way. The Iroquese make a fatal Incursion into the Island of Montreal; Fort Frontenac is abandoned; Count Frontenac is sent to Canada, and the Marquis of Denonville is recalled.

SIR,

I WRIT to you from Missilimakinac on the 28th of May. I left that place June the 8th, and set out for Montreal, accompanied with twelve Outaouas, who were

divided

divided into two canoes, and rowed very hard. The 23d I overtook the *coureurs de bois* in the river Creuse, who had got the start of me for some days. Mr. Dalhut used his utmost efforts to dissuade me from going further with so weak a retinue. He would have had me to go down along with him, and remonstrated to me, that if my twelve conductors perceived either in the land-carriage or upon the rivers, any thing that might call up an apprehension of falling into the hands of the Iroquese, they would desert me and the canoes, and fly to the woods to avoid the enemy. I rejected his advice, though I had like to have repented of my resolution not long after; for according to his prediction, my canoe-men threatened to run away to the forests, at the fall called Long Saut: and, indeed, if they had done it, I had followed them, upon the reflection, that of two evils a man ought to choose the least; but this storm blew over. In the great river of the Outaouas, not far from the river of Lievre, I met M. de St. Helene at the head of a party of the *coureurs de bois*, who was bound for Hudson's Bay, in order to retake some forts that the English had seized upon. He acquainted me with the Prince of Orange's expedition for England; and gave me to understand, that upon his arrival, King James retired to France, and that the Prince was proclaimed King; which seemed to preface a bloody and sharp war in Europe. I assure you, Sir, this piece of news surprized me extremely; and notwithstanding that I had it from the mouth of a man whose word I rely very much upon, yet I had all the difficulty in the world to make myself believe that a revolution of such importance could be accomplished in so short a time, without the effusion of blood; especially, considering what a strict alliance there was between our court and the court of England, and how much it was the interest of both these monarchs to give mutual assistance to one another. July the 9th I arrived at Monreal, after venturing down several fearful cataracts in the river of the Outaouas, and enduring the hardships of fifteen or twenty land-carriages, some of which are above a league in length.

The navigation is pretty sure from Missilimakinac to the river des Francois; for in coasting along the Lake of Hurons, we meet with an infinity of islands, which serve for a shelter. But in going up that river, there is some difficulty; for it has five cataracts which oblige us to turn out and carry all over-land for thirty, fifty, and a hundred paces. Having passed that river, we entered the lake of the Nepicerinis, from whence we are forced to transport our canoes and baggage two leagues over-land, to another river which has six or seven water-falls that we commonly shoot. From that river we have another land-carriage to the river Creuse, which falls with rapid currents into the great river of the Outaouas, near a place called Mataouan. We continue our course upon this great river, till we come to the point of the island of Monreal, where it is lost in the great river of St. Lawrence. These two rivers join one another with very gentle streams, and quitting their fearful channels, form the little Lake of St. Louis. I thought to have lost my life at the fall, called the Fall of St. Louis, about three leagues from Monreal; for our canoe having overset in the eddy, I was carried by the current to the foot of that cataract, from whence the Chevalier de Vaudreuil dragged me out by a great chance. The canoes and the skins belonging to the six savages were lost; and one of the savages was drowned. This is the only time I was in danger through the whole course of my voyages. As soon as I landed here, I repaired with diligence to a tavern to refresh myself, and to make up the losses I had sustained by a necessary abstinence. The next day I waited upon M. de Denonville and M. de Champigni, to whom I gave an account of my voyages, and withal, gave in the news that a great company of the *coureurs de bois* and savages would arrive very speedily; which they did accordingly, after fifteen days. The Rat I mentioned above,

came down hither, and returned home notwithstanding the threats that were levelled against him. By this adventure, he shewed that he laughed at their intrigues. But now that I have mentioned his name, I cannot forbear mentioning a malicious stratagem that this cunning savage made use of last year, to prevent the conclusion of a peace between M. de Denonville and the Iroquese.

This savage is the general and chief counsellor of the Hurons; he is a man of forty years of age, and brave in his way. When he found himself pressed and importuned by M. de Denonville, to enter into the alliance concluded in the year 1687, that I took notice of before; he at last complied with his desire, with this reserve, that the war should not be put to an end till the Iroquese were totally routed. This clause the governor promised to make good, and gave him assurances to that purpose on the 3d of September, in the same year, which happened about two days before I set out from Niagara upon my voyage to the great lakes. This savage general relying upon M. de Denonville's promise, marched from Missilimakinac at the head of an hundred warriors, as I insinuated in my 14th letter, in order to invade the Iroquese country, and atchieve some glorious feats among them. In the mean time, to carry on his design the more cautiously, he thought it proper to pass by the way of Fort Frontenac, where he might receive some intelligence. Upon his arrival at this fort, the governor told him, that M. de Denonville was negotiating a peace with the five Iroquese nations, whose ambassadors and hostages he expected in a short time in order to conclude and ratify the peace, he having orders to conduct them to Monreal: and that upon that consideration, it was most proper for him and his warriors to return home, and to pass no further. The savage general was mightily surpris'd with this unexpected piece of news; especially considering that by the means of that peace he and his nation would be given up as a sacrifice for the welfare of the French. When the governor had made an end of his remonstrance, the Rat acknowledged, that what he offered was very reasonable, but withal, that instead of following his advice, he would go and tarry for the Iroquese ambassadors and hostages at the cataracts, by which they were obliged to pass. He had not tarried there above five or six days before the unhappy deputies arrived with a train of forty young men, who were all either killed or taken as they disembarked. The prisoners were no sooner fettered than this crafty general of the Hurons represented to them, that the French governor had sent him notice to take up that post, in order to lie in wait for a party of fifty warriors, that were to pass that way at a certain set time. The Iroquese being much surpris'd with the apprehension of the perfidiousness that he charged upon M. de Denonville, acquainted the Rat with the design upon which they came. Upon that the Rat counterfeited a sort of rage and fury; and to play his cards the better, flew out in invectives against M. de Denonville, declaring, that some time or other he would be revenged upon that governor, for making him the instrument of the most barbarous treachery that ever was acted. Then he fixed his eyes upon all the prisoners, among whom was the chief ambassador called Theganeforens, and spoke to this purpose; Go, my brethren, though I am at war with you, yet I release you, and allow you to go home. It is the governor of the French that put me upon this black action, which I shall never be able to digest, unless your five nations revenge themselves, and make their just reprisals. This was sufficient to convince the Iroquese of the sincerity of his words; and they assured him upon the spot, that if he had a mind to make a separate peace, the five nations would agree to it: however, the Rat having lost one man in this adventure, kept an Iroquese slave to supply the place of the man he had lost: and after furnishing the prisoners with guns, powder, and ball, in order to their return homeward, marched to Missilimakinac, where he presented the French governor
with

with the slave that he brought off. The poor wretch was no sooner delivered than he was condemned to be shot; for at that time the French garrison did not know that M. de Denonville designed to clap up a peace with the Iroquese. The condemned prisoner gave an account of his adventure, and that of the ambassadors; but the French thought that the fear of death made the fellow talk idly, and were confirmed in that thought, by hearing the Rat and his men say, that he was light-headed; insomuch, that the poor fellow was put to death notwithstanding all the reasons he could offer. The same day that he was shot, the Rat called an old Iroquese slave that had served him a long while, and told him, he had resolved to allow him the liberty of returning to his own country, and spending the rest of his days among his friends and countrymen. At the same time he gave him to know, that since he had been an eye-witness of the barbarous usage that his countryman had met with from the French, notwithstanding what he offered in his own defence, it behoved him to acquaint his countrymen with the blackness of that action. The manumitted slave obeyed his orders so punctually, that soon after the Iroquese made an incursion, at a time when the governor did not dream of any such thing, for he had used the precaution of giving the Iroquese to understand, that he disallowed of the Rat's treachery, insomuch that he had a mind to have him hanged; and upon this prospect, expected hourly ten or twelve deputies to conclude the peace he so much desired.

In effect the deputies did come, but neither their number nor their design was suitable to what the governor had promised to himself. Twelve hundred warriors landed at the lands-end of the island of Monreal, and burnt and sacked all the plantations in that quarter: they massacred men, women, and children; and Madame de Denonville, who was then at Monreal with her husband, did not think herself safe in that place. A general consternation was spread all about; for the barbarians were not above three leagues from Monreal. They burnt all the adjacent settlements, and blocked up two forts. M. de Denonville sent out a detachment of a hundred soldiers and fifty savages to oppose them, being unwilling to spare a greater number out of the city: but all the men of the detachment were either taken or cut in pieces, excepting twelve savages, one soldier, and M. de Longueil who commanded the party, and was carried off by the twelve savages after his thigh was broke: the other officers, namely, the Sieurs de la Raberrie, Denis, la Plante, and Villedenè, were all taken prisoners. In a word, the barbarians laid almost the whole island waste, and lost only three men, who having drank to excess of the wine they found in the plantations, were decoyed into a fort by a Canadese cow-keeper, that had been their slave for some years. As soon as the three unfortunate Iroquese arrived in the fort, they were thrown into a cellar to sleep themselves sober; and questionless, as soon as they waked they repented of their excessive drinking. When they waked, they fell immediately to singing; and when the garrison offered to fetter them, and carry them to Monreal, they flew to some clubs that lay in the cellar, and made such a vigorous and brave defence, that the garrison was forced to shoot them upon the spot. The cow-keeper being brought before M. de Denonville, he told him, that the breach made by the Rat's contrivance was irreparable; that the five Iroquese nations resented that adventure with so much warmth, that it was impossible to dispose them to a peace in a short time; that they were so far from being angry with that Huron for what he did, that they were willing to enter into a treaty with him, owning that he and his party had done nothing but what became a brave man and a good ally. Doubtless this fatal incursion was a great surprisal to M. de Denonville, and afforded him a copious field for reflection. It was already impossible to continue the possession of Fort Frontenac; where they began to want

want provisions, and which could not be relieved without exposing a great many men to the danger of the passes or cataracts, which I have mentioned so often. There was a downright necessity of calling out the garrison and blowing up the fort: but the difficulty lay in finding a man to carry orders to that effect to the governor, for nobody durst undertake it, till the *Sieur Peter de Arpentigni* offered to go all alone through the forests; and accordingly he went and did his business successfully. The orders were extremely welcome to *M. de Valrenes*, the governor of the fort for the time; who, upon the receiving them, run a mine under the four bastions, which, with the powder he put in, was reckoned sufficient to blow it up. This done, he embarked, and came down the river through the cataracts to *Monreal*, where he found *M. de Denonville*, and accompanied him hither. That officer did not only abdicate the *Fort of Frontenac*, but set fire to the three great barks that they used to ply with upon the lake, both to awe the *Iroquese* in time of war, and to convey commodities to them in time of peace. *M. de Denonville* acted a prudent part in relinquishing both this fort and that of *Niagara*; for, in earnest, these two posts are indefensible, by reason of the inaccessible cataracts, upon which an ambuscado of ten *Iroquese* may repulse a thousand Frenchmen by the throwing of stones. But after all I must own, that the welfare and preservation of our colonies had an absolute dependance upon these two forts, which seemed to insure the utter destruction of the *Iroquese*; for they could not stir out of their villages to hunt or to fish, without running the risque of having their throats cut by the savages in alliance with us, who being then assured of a safe retreat, would have made continual incursions into the country of those barbarians: and by this means, the *Iroquese* being unprovided with beaver-skins to be given in exchange for guns, powder, ball, and nets, would be starved to death, or at least, be obliged to depart their country.

In the end of September *M. de Bonaventure*, captain and owner of a merchant ship, arrived in this port, and brought the news of *M. de Frontenac's* reinstalment in the place of governor-general of Canada, and of the recalling of *M. de Denonville*, whom the *Duke de Beauvilliers* has recommended to the King, for the place of sub-governor to the princes his grandsons. Some people are uneasy at the recalling of this governor; and it is said, that the reverend fathers the *Jesuits*, fall under the number of the malcontents; for if we may credit the reports of the country, they contributed in a great measure to the recalling of *M. de Frontenac* seven or eight years ago, by acting in concert with the intendant of *Chesneau*, and supreme council, and drawing up accusations against him which had the desired effect; though now the King shews that he is undeceived, by reinstating that gentleman once more in this government. In the mean time the statesmen of the country that are most guilty, know not how to dress this kettle of fish; for they make no question but the new governor will retain a just resentment of what is past; but the gentlemen, merchants, and other inhabitants, are making preparations for solemnizing his arrival, which they expect with as much impatience as the Jews do the *Messiah's*. The very savages that live in the skirts of the colony, shew an uncommon joy upon the hopes of his return; and indeed, we need not think it strange, for that governor drew esteem and veneration not only from the French but from all the nations of this vast continent, who looked upon him as their guardian angel. *M. de Denonville* begins to pack up his baggage, and that in effect, is all I can say of him. It is none of my business to meddle with an infinity of affairs that relate to the gentleman's private interest. As to the question, whether he has managed well or ill, during the course of his government, or whether he was

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loved or hated, I know nothing of the matter. I am at a loss to know whether he kept a good or sorry table, for indeed I was never at it. Adieu.

I make account to set out for Rochel, when the vessel that brings our new governor returns for France.

I am, Sir, yours, &c.

LETTER XVIII.

Dated at Quebec, Nov. 15, 1689.

Giving an Account of M. de Frontenac's Arrival, his Reception, his Voyage to Monreal, and the repairing of Fort Frontenac.

SIR,

THE intelligence you give me of the adjudging of the lands of Lahontan, would have driven me to despair, if you had not assured me at the same time, that I might recover it after a century of years, (if I had the misfortune to live so long,) upon the condition of reimbursing to the possessor the sum that he paid for it, and of proving that I was actually in the King's service in the remote parts of the world when that estate was sold. To speak to the purpose, M. de Frontenac has countermanded the leave I had to go for France, and has offered me a free access to his pocket and his table. All the arguments I offered have no influence upon him, and so I am bound to obey.

This new governor arrived at Quebec the 15th of October. He came on shore at eight o'clock at night, and was received by the supreme council, and all the inhabitants in arms, with flambeaux both in the city, and upon the harbour, with a triple discharge of the great and small guns, and illuminations in all the windows of the city. That same night he was complimented by all the companies of the town, and above all, by the Jesuits, who upon that occasion made a very pathetic speech, though the heart had less hand in it than the mouth. The next day he was visited by all the ladies, whose inward joy appeared in their countenances, as much as in their words. Several persons made fire-works, while the governor and his retinue sung *Te Deum* in the great church. These solemn demonstrations of joy increased from day to day, till the new governor set out for Monreal; and the conduct of the people upon this head afforded signal proofs of the satisfaction they had in his return, and of their resting assured that his wise conduct and noble spirit would preserve the repose and tranquillity that he always kept up during his first ten years' government. All the world adored him, and stiled him *Redemptor Patriæ*; to which title he had a just claim, for all the inhabitants of these colonies agree, that when he came first to Canada, he found all things in confusion and distress. At that time the Iroquese had burnt all the plantations, and cut the throats of some thousands of the French; the farmer was knocked on the head in his field; the traveller was murdered upon the road, and the merchant ruined for want of commerce: all the planters were pinched with famine, the war rendered the country desolate; and, in a word, New France had infallibly perished, if this governor had not made that peace with the barbarians, that I spoke of in my fifth letter. The bringing of that peace to bear was an action of greater importance than you can well imagine; for these barbarians grounded all their wars upon a personal enmity, whereas the European ruptures depend more upon interest than upon pure revenge.

M. de

M. de St. Valiers, the Bishop of Quebec, arrived likewise on the 15th at the same port. He had embarked in the preceding spring, on board of a bark that he had hired to transport him to Acadia, to Newfoundland, and to the other countries of his diocese. M. de Frontenac, our governor, set out for Monreal in a canoe, four or five days after his arrival ; and I had the honour to accompany him. All endeavours were used to dissuade him from undertaking that voyage, when the season was so cold, and so far advanced : for, as I informed you before, the ice is thicker and stronger here in October than it is at Paris in January, which is very strange. Notwithstanding all the remonstrances drawn from the hardships and inconveniencies of the voyage, he slighted the fatigues of the water, and threw himself into a canoe in the sixty-eighth year of his age ; nay, he took the abdication of Fort Frontenac so much to heart, that he had gone straight thither, if the nobility, the priests, and the inhabitants of Monreal, had not entreated him, with joint supplications, not to expose his person to the danger of the falls and cataracts that lie in that passage. In the mean time some gentlemen of Canada, followed by a hundred coureurs de bois, under the command of M. Mantet, ventured upon the voyage, with intent to learn the state of the fort. I acquainted you in my last letter, that M. de Valrenes had blown up the walls of the fort, when he made his retreat ; but by good luck, the damage was not so great as it was taken to be ; for the party commanded by M. Mantet, have already reared up the ruinous wall to the height of some fathoms, and will continue to work upon the repair of the fort all this winter. This news M. de Frontenac received last night, which was the sixth after his return to this city.

I had forgot to tell you, that he brought with him out of France, some of those Iroquese that M. de Denonville had sent to the galleys, as I intimated in my thirteenth letter ; the rest having perished in their chains. Of all these unfortunate barbarians that he has brought back, the most considerable is one that goes by the name of Oreouahè. He was not used as a galley slave, in regard that he was the leader of the Goyoguan, and the governor has lodged him in the castle, in consideration of the esteem he shews both for M. de Frontenac, and for the French nation. Some flatter themselves with the hopes, that some accommodation with the five Iroquese nations may be effected by his mediation ; and for that end proposals of peace are now in agitation ; but I have three good reasons for predicting, that such a design will prove abortive. I have already laid these reasons before M. de Frontenac, who gave me to know, that after the departure of the ships, he would discourse with me upon that head. I shall not offer at the particulars of his interview, with Monsieur and Madam de Denonville, till such time as you and I have an opportunity of talking under the rose. Some officers accompany M. de Denonville and his Lady to France, in hopes of being preferred. In all probability the ships will set sail to-morrow, for we have now a fair and gentle westerly gale ; besides, that the season for quitting this port, is almost spent.

I am, Sir, yours, &c.

LETTER XIX.

Dated at Monreal, October 2, 1690.

Relating the Attempts upon New England and New York ; a fatal Embassy sent by the French to the Iroquese ; and an ill-concerted Enterprize of the English and the Iroquese, in marching by Land to attack the French Colony.

SIR,

ABOUT fifteen days since, a ship of Rochel, laden with wine and brandy, arrived in this harbour ; and the captain took care to convey a letter from you to my hands. As to your desire of having a circumstantial account of the trade of Canada, I cannot satisfy it at present, for I am not as yet so thoroughly acquainted with all its branches. But I assure you, that some time or other I shall send you such memoirs, as will give you satisfaction upon that head. In the mean time, I hope you will be contented with an account of what passed in this country since the date of my last.

As soon as M. Denonville set out from Quebec upon his return to France, M. de Frontenac took possession of the fort, which is the common residence of our governor-general, and ordered one of our best architects to make preparations for rebuilding it as soon as he could.

In the beginning of this year, M. D'Iberville attempted to pillage a small village in New York, called by the Iroquese Corlar, which name they likewise give to all the governors of that English colony. This gentleman, who is a Canadese, was attended by five hundred coureurs de bois, and the like number of savages ; and the whole party made the expedition over snow and ice, notwithstanding they had three hundred leagues to march backward and forward, and that the roads were very rugged and troublesome. M. D'Iberville met with wonderful success, for after he had pillaged, burnt, and sacked that little village, with the adjacent cantons, he fell in with a party of an hundred Iroquese, and defeated them entirely. Much about the same M. de Portneuf, another Canada gentleman, marched out at the head of three hundred men, one half savages, and the other half coureurs de bois, with intent to possess himself of a fort belonging to the English, called Kenebeki, which stands upon the sea coast of New England, towards the frontiers of Acadia. The garrison of this fort made a brave defence, but there being great quantities of grenadoes and other fire-works thrown in upon them, while the savages (contrary to their custom) scaled the palisadoes on all hands, the governor was obliged to surrender upon discretion. It is said, that in this action the coureurs de bois did their duty very bravely, but the enterprize had proved successless without the assistance of the savages.

As soon as the rivers were navigable, M. de Frontenac offered to send me with proposals of peace to the Iroquese ; but I made answer, that since his pocket and table had been free to me during the winter, I could not imagine that he had a mind to be rid of me so soon. Being obliged by this reply to unfold my meaning, I remonstrated to him, that the King of England having lost his crown, and war being proclaimed, the governors of New England and New York, would infallibly use their utmost efforts to excite these banditti to redouble their incursions ; that for that end they would furnish them with ammunition gratis, and even join them, in order to attack our towns ; and above all, that the intrigue of the Rat had so provoked them, that, in my opinion, it was impossible to appease them. Upon these considerations, I humbly beseeched

him to have some other person in his view, in case he persisted in his design of making a trial of that nature. The Chevalier Do was singled out for this fatal embassy, being attended by one Colin, as interpreter of the Iroquese language, and two young Canadians. They set out in a canoe, and when they came in sight of the village of the Onnontagues, were received with the honourable salvo of several good blows, and conducted with the same ceremony to the village. Such a reception could not but be disagreeable to the gentleman that came to make offers of peace. The ancient men, being quickly assembled, thought it most proper to send them back with a favourable answer, and in the mean time to engage some of the Agnies and Onnoyotes, to lie in wait for them at the cataracts of the river, and there kill two, sending the third back to Quebec, and carrying the fourth to their village, where there would be found some English that would shoot them, that is, that would give them the same usage as the Rat did to their ambassadors: so true it is, that that action sticks in their stomachs. This project had actually been put in execution, if it had not been for some of the planters of New York, who were then among the barbarians, having come thither on purpose to animate them against us. These planters knew so well how to influence the barbarians, that were already bent upon revenge, that a company of young barbarians burnt them all alive, excepting the Chevalier Do, whom they tied hand and foot, and sent him bound to Boston, with a design to pump out of him a view of the condition of our colonies and forces. This piece of news we received two months after by some slaves that made their escape from the Iroquese; and M. de Frontenac, when surprized with such dismal news, declared, that out of twenty captains that offered to execute that commission, and would have taken the employment for an honour, I was the only one that had been capable of foreseeing its bad success.

June the 24th, I embarked for this place in a sluggish brigantine, that the captain of the governor's guards had caused to be built the foregoing winter. This venerable vessel had the honour to lodge the intendant and his lady; and all of us being in no haste, spent ten or twelve days by the way, and feasted like kings every night. M. de Frontenac marked out a fort in his passage to the city of Trois Rivières, which I spoke of before. Fifteen days after our arrival in this place, a certain savage whose name was Plake, came and gave us notice, that he had discovered a body of a thousand English, and five hundred Iroquese, that marched up to attack us. Upon this intelligence, all our troops crossed over to the meadow of Medalaine, opposite to this city, and there encamped, in conjunction with three or four hundred savages that were our allies, in order to give the enemy a warm reception. Our camp was no sooner formed, than M. de Frontenac detached two or three small parties of the savages to observe the enemy. These parties came soon back, after having surprized some straggling Iroquese at hunting on the confines of Champlaine lake: the prisoners informed us, that the English being unable to encounter the fatigues of the march, and unprovided with a sufficient stock of provisions, both they and the Iroquese were returned to their own country. This account being confirmed by other savages, our troops decamped, and marched back to this place, from whence I was detached some days after to command a party that was to cover the reapers of fort Roland, which lies in this island. When the harvest was over I returned to this place, along with the Hurons and the Outaouas, who had come down from their own country, in pursuit of their usual trade in skins; an account of which you had in my eighth letter. These traders continued here fifteen days, and then marched home.

This, Sir, is a summary of all our occurrences of moment since the last year. About fifteen days hence I think to set out for Quebec, in M. de Frontenac's brigantine. I conclude with my usual compliment,

Sir, yours, &c.

LETTER XX.

Dated at Rochel, January 12, 1691.

Being a Relation of a Second and very important Expedition of the English by Sea; in which is contained a Letter written by the English Admiral to Count Frontenac, with the Governor's verbal Answer. As also an Account of the Author's Departure for France.

SIR,

I AM arrived at last at Rochel, from whence I now transmit you a relation of all that passed in Canada, since the date of my last letter. In the space of a few days after that date, M. de Frontenac received advice that a strong fleet of English ships amounting to thirty-four sail, was seen near Tadoussac. Immediately he got on board of his brigantine, and ordered all the troops to embark in canoes and boats, and to row night and day to prevent the enemy; all of which was happily put in execution. At the same time he gave orders to M. de Callieres, to bring down as many of the inhabitants as possibly he could. We rowed with such expedition, and diligence, that we arrived the 3d day at Quebec. As soon as M. de Frontenac debarked, he viewed the weakest posts, and ordered them to be fortified without loss of time: he raised batteries in several places, and though in that capital city we had but twelve great guns, and but little ammunition, yet he seemed to be resolutely bent upon an obstinate resistance to the efforts of the enemy's fleet, which in the mean time stood catching of flies, at the distance of two leagues from Quebec. We took the advantage of their slow approaches, and worked incessantly to put ourselves in a posture of defence. Our troops, our militia, and our confederate savages, came up to us on all hands. It is certain, that if the English admiral had made his descent before our arrival at Quebec, or even two days after, he had carried the place without striking a blow; for at that time there was not two hundred French in the city, which lay open, and exposed on all hands; but instead of doing that, he cast anchor towards the point of the island of Orleans, and lost three days in consulting with the captains of the ships, before they came to a resolution. He took the Sieur Joliet with his lady and his mother-in-law, in a bark in the river of St. Laurence. Three merchantmen from France, and one laden with beaver-skins from Hudson's Bay, entered the river of Saguenay, by the way of Tadoussac, where they sculked, and after hauling their guns ashore, raised very good batteries. To be short, the officers of the enemy's fleet came to a resolution after the loss of three or four days in useless consultations, during which time we were joined on all hands by great numbers of inhabitants and soldiers. Pursuant to the resolution of the councils of war, the English admiral, namely, Sir William Phips, sent out his sloop with a French flag upon its prow, which made up to the city with sound of trumpet. Upon this, M. de Frontenac sent out another with a French officer to meet it, who found an English major in the sloop, who gave him to understand, that he had the charge of a letter from his general, to the governor of Canada, and hoped he might be allowed to deliver it himself. Upon that

that the French officer took him into his sloop, and having blindfolded him, conducted him to the governor's chamber; where his face being uncovered, he delivered him a letter, the substance of which was this:

"I, Sir William Phips, general of the forces of New England, by sea and land, to Count Frontenac, governor-general of Quebec, by orders from, and in the name of William III. and Mary, King and Queen of England, am come to make myself master of this country. But in regard that I have nothing so much in view, as the preventing of the effusion of blood, I require you to surrender at discretion, your cities, castles, forts, towns, as well as your persons; assuring you at the same time, that you shall meet with all manner of good usage, civility and humanity. If you do not accept of this proposal without any restriction, I will endeavour, by the assistance of Heaven, on which I rely, and the force of my arms, to make a conquest of them. I expect a positive answer in writing in the space of an hour; and in the mean time give you notice, that after the commencement of hostilities, I shall not entertain any thoughts of accommodation.

(Signed,)

"WILLIAM PHIPS."

After the interpreter had translated the letter to M. de Frontenac, who was then surrounded with officers, he ordered the captain of his guards to make a gibbet before the fort, in order to hang the poor major, who in all appearance understood French, for upon the pronouncing of this fatal sentence, he was like to swoon away; and indeed I must say, the major had some reason to be affected, for he had certainly been hanged if the bishop and the intendant, who, to his good luck, were then present, had not interceded on his behalf. M. de Frontenac pretended, that they were a fleet of pirates, or of persons without commission, for that the King of England was then in France. But at last the governor being appeased, ordered the major to repair forthwith on board of his admiral, against whom he could defend himself the better, for not being attacked. At the same time he declared, that he knew of no other King of Great Britain than James II., that his rebellious subjects were pirates, and that he dreaded neither their force nor their threats. This said, he threw Admiral Phips's letter in the major's face, and then turned his back upon him. Upon that the poor ambassador took fresh courage, and looking upon his watch, took the liberty to ask M. de Frontenac, if he could not have his answer in writing before the hour elapsed. But the governor made answer with all the haughtiness and disdain imaginable, that his admiral deserved no other answer than what flew from the mouth of cannons and muskets. These words were no sooner pronounced, than the major was forced to take his letter again, and being blindfolded, was reconducted to his sloop, in which he rowed towards the fleet with all expedition.

The next day about two in the afternoon, sixty sloops were sent ashore with ten or twelve hundred men, who stood upon the sand in very good order. After that the sloops went back to the ships, and brought ashore the like complement of men, which was afterwards joined by a third complement of the same number. As soon as these troops were landed, they began to march towards the city with drums beating and colours flying. This descent was made over against the isle of Orleans, about a league and a half below Quebec; but it was not so expeditious but that our confederate savages, with two hundred coureurs de bois, and fifty officers, had time to post themselves in a copse of thick brambles, which lay half a league off the place of landing. It being impossible for so small a party to come to an open battle with a numerous enemy,

enemy, they were forced to fight after the manner of the savages, that is, to lay ambuscadoes from place to place in the copse, which was a quarter of a league broad. This way of waging war proved wonderfully successful to us, for our men being posted in the middle of the copse, we suffered the English to enter, and then fired upon them, lying flat upon the ground till they fired their pieces; after which we sprung up, and drawing into knots here and there, repeated our fire with such success that the English militia perceiving our savages, fell into confusion and disorder, and their battalions were broke; insomuch, that they betook themselves to flight, crying out, Indians, Indians, and gave our savages the opportunity of making a bloody slaughter among them; for we found three hundred men left upon the spot, without any other loss on our side than that of ten *coureurs de bois*, four officers, and two savages.

The next day the English landed four pieces of brass cannon mounted like field-pieces, and fought very bravely, though they were very ill disciplined. It is certain there was no want of courage on their side, and their want of success must be imputed to their unacquaintance with military discipline, to their being enfeebled by the fatigues of the sea, and to the ill conduct of Sir William Phips, who upon this enterprize could not have done less than he did, if he had been engaged by us to stand still with his hands in his pockets. This day passed over more peaceably than the next, for then the English made a fresh attempt to force their passage through the copse, by the help of their artillery; but they lost three or four hundred more in the attempt, and were forced to retire with all diligence to the landing-place. On our side we lost M. de St. Helene, who died of a wound in his leg, and about forty Frenchmen and savages. This victory animated us so much, that we pursued the English to their camp, and lay all night flat upon the ground just by it, with a design to attack it by break of day; but they saved us the labour, for they embarked about midnight with such confusion, that we killed fifty more of them, rather by chance than by dexterity, while they were getting into their boats. When day came, we transported to Quebec their tents and their cannon, which they had left behind them; the savages being in the mean time employed in stripping the dead in the wood.

The same day that the descent was made, Sir William Phips weighed and came to an anchor with four great ships, at the distance of a musket-shot from the lower city, where we had only one battery of six or eight pounders. There he cannonaded for twenty-four hours so handsomely, that the fire of the great guns equalled that of the small arms. The damage they did to the roofs of the houses amounted to five or six pistoles; for, as I informed you in my first letter, the walls of the houses are so hard that a ball cannot pierce them.

When Sir William Phips had made an end of these glorious exploits, he sent to demand of M. de Frontenac some English prisoners in exchange for the *Sieur Joliet*, with his wife and his mother, and some seamen, which was forthwith put in execution. This done, the fleet weighed anchor and steered homeward. As soon as the three merchantmen that lay skulking in the river of Saguenay, saw the fleet running below Tadoussac with full sail before a westerly gale, they put their guns aboard, and pursuing their voyage with great satisfaction, arrived at Quebec on the 12th of November. They had scarce put their cargo on shore, when the bitter cold covered the river with ice, which damaged their ships so much, that they were forced to run them ashore. This troublesome frost was as uneasy to me as to M. de Frontenac, for then I saw that I was obliged to pass another winter in Canada, and M. de Frontenac was at a loss to contrive a way of sending the King advice of this enterprize; but, by good luck, there came all of a sudden a downfall of rain, which was followed by a thaw, and was equally

equally acceptable to us both. Immediately the governor ordered an unrigged frigate to be rigged and fitted out ; which was done accordingly with such dispatch that the ballast, sails, ropes, and masts were all in order almost as soon as the orders were given out. When the frigate was ready to sail, the governor told me, that the making of France as soon as ever I could, would be a piece of important service ; and that I ought rather to perish than to suffer myself to be taken by the enemy, or to put in at any port whatsoever by the way : at the same time he gave me a particular letter to M. de Seignelay, the purport of which was much to my advantage.

I put to sea the 20th of November, the like of which was never seen in that place before. At the isle of Coudres we escaped luckily, for there the north-east wind blew so hard upon us, that after we had dropped anchor, we thought to have been split in pieces in the night-time. The rest of our passage was good enough, for we encountered but one storm till we arrived at this place. Indeed we met with contrary wind, about an hundred and fifty leagues off the coast of France, which obliged us to traverse, and lie by for a long time ; and it was for this reason that our passage was so long.

I hear you are now in Provence, and that M. de Seignelay is gone upon a voyage to the other world, which is of a quite different nature from that I have just performed. In earnest, Sir, his death is the last misfortune to the navy of France, to the colonies of the two Americas, and to me in particular, since M. de Frontenac's recommendatory letter is thereby rendered useless to me.

I am, Sir, yours, &c.

MEMOIRS OF NORTH AMERICA;

CONTAINING

A GEOGRAPHICAL DESCRIPTION OF THAT VAST CONTINENT; THE
CUSTOMS AND COMMERCE OF THE INHABITANTS, &c.

SIR,

IN my former letters I presented you with a view of the English and French colonies, the commerce of Canada, the navigation upon the rivers and lakes of that country, the course of sailing from Europe to North America, the several attempts made by the English to master the French colonies, the incursions of the French upon New England, and upon the Iroquese country: in a word, Sir, I have revealed a great many things, that for reasons of state or politics, have been hitherto concealed; inasmuch, that if you were capable of making me a sacrifice to your resentment, it is now in your power to ruin me at court, by producing my letters.

All that I writ in the foregoing letters, and the whole substance of the memoirs I now send you, is truth as plain as the sun-shine. I flatter no man, and I spare nobody. I scorn to be partial; I bestow due praise upon those who are in no capacity to serve me, and I censure the conduct of others, that are capable of doing me an injury by indirect methods. I am not influenced by that principle of interest and party-making, that is the rule of some folks words. I sacrifice all to the love of truth, and write with no other view, than to give you a just representation of things as they are. It is beneath me to mince or alter the matter of fact, contained either in the letters I sent you some ten or twelve years ago, or in these memoirs. In the course of my voyages and travels, I took care to keep particular journals of every thing; but a minute relation of all particulars would be irksome to you, besides, that the trouble of taking a copy of the journals, before I have an opportunity of shewing you the original, would require more time than I can well spare. In these memoirs you will find as much as will serve to form a perfect idea of the vast continent of North America. In the course of our correspondence from the year 1683, to this time, I sent you five-and-twenty letters, of all which I have kept a double very carefully. My only view in writing of these letters, was to inform you of the most essential things; for I was unwilling to perplex and confound your thoughts, with an infinity of uncommon things, that have happened in that country. If you will consult my maps, as you read the abovementioned letters, you will find a just representation of all the places I have spoken of. These maps are very particular, and I dare assure you, they are the correctest yet extant. My voyage upon the Long River, gave me an opportunity of making that little map, which I sent you from Missilimakinac in 1699, with my sixteenth letter. It is true, it gives only a bare description of that river, and the river of the Missouris; but it required more time than I could spare, to make it more complete, by a knowledge of the adjacent countries, which have hitherto been unknown to all the

world as well as that great river, and which I would never have visited, if I had not been fully instructed in every thing that related to it, and convoyed by a good guard. I have placed the map of Canada at the front of these memoirs, and desire that favour of you, that you would not shew it to anybody under my name. To the latter part I have subjoined an explication of the marine, and other difficult terms, made use of in my letters, as well as in these memoirs; which you will please to consult, when you meet with a word that you do not understand.

A short Description of Canada.

You will think, Sir, that I advance a paradox, when I acquaint you that New France, commonly called Canada, comprehends a greater extent of ground than the half of Europe: but pray mind what proof I have for that assertion. You know that Europe extends south and north, from the 35th to the 72nd degree of latitude, or, if you will, from Cadiz to the North Cape on the confines of Lapland; and that its longitude reaches from the 9th to the 94th degree, that, is from the River Oby to the West Cape in Yslandia. But at the same time, if we take the greatest breadth of Europe, from east to west, from the imaginary canal, (for instance) between the Tanais and the Volga, to Dinglebay in Ireland, it makes but 66 degrees of longitude, which contain more leagues than the degrees allotted to it towards the polar circle, though these are more numerous, by reason that the degrees of longitude are unequal; and since we are wont to measure provinces, islands, and kingdoms by the space of ground, I am of the opinion, that we ought to make use of the same standard with respect to the four parts of the world. The geographers who parcel out the earth in their closets, according to their fancy; these gentlemen, I say, might have been aware of this advance, if they had been more careful. But, to come to Canada.

All the world knows, that Canada reaches from the 39th to the 65th degree of latitude, that is, from the south side of the lake Errie, to the north side of Hudson's Bay; and from the 284th to the 336th degree of longitude, viz. from the river Mississipi to Cape Rase, in the island of Newfoundland. I affirm, therefore, that Europe has but 11 degrees of latitude and 33 of longitude more than Canada, in which I comprehend the island of Newfoundland, Acadia, and all the other countries that lie to the northward of the river St. Laurence, which is the pretended great boundary that severs the French colonies from the English. Were I to reckon in all the countries that lie to the north-west of Canada, I should find it larger than Europe: but I confine myself to what is discovered, known, and owned; I mean, to the countries in which the French trade with the natives for beavers, and in which they have forts, magazines, missionaries, and small settlements.

It is above a century and a half since Canada was discovered. John Verasan was the first discoverer, though he got nothing by it, for the savages eat him up. James Cartier was the next that went thither; but after sailing with his ship above Quebec, he returned to France, with a sorry opinion of the country. At last, better sailors were employed in the discovery, and traced the river of St. Laurence more narrowly: and about the beginning of the last century, a colony was sent thither from Rouen, which settled there after a great deal of opposition from the natives. At this day the colony is so populous, that it is computed to contain one hundred and eighty thousand souls. I have already given you some account of that country in my letters, and therefore shall now only point to the most noted places, and take notice of what may gratify your curiosity beyond what you have yet heard.

We are at a loss to find the head of the river of St. Laurence, for though we have traced it seven or eight hundred leagues up, yet we could never reach its source; the remotest place that the *coureurs de bois* go to, being the lake Lenemipigon, which disembogues into the Upper Lake, as the Upper Lake does into the lake of Hurons, the lake of Hurons into that of Erriè alias Conti, and that of Erriè into the lake of Frontenac, which forms this last great river, that runs for twenty leagues with a pretty gentle stream, and sweeps through thirty more with a very rapid current, till it reaches the city of Monreal; from whence it continues its course with some moderation to the city of Quebec; and after that, spreads out, and enlarges itself by degrees to its mouth, which lies a hundred leagues further. If we may credit the north-country savages, this river takes its rise from the great lake of the Assinipouals, which they give out to be larger than any of the lakes I mentioned but now, being situated at the distance of fifty or sixty leagues from the lake of Lenemipigon. The river of St. Laurence is twenty or twenty-two leagues broad at its mouth, in the middle of which there is an island called Anticosti, which is twenty leagues long. This island belongs to the *Sieur Joliet*, a Canadian, who has built a little fortified magazine upon it, to guard his goods and his family from the incursions of the *Eskimaux*, of whom more anon. He deals with the other savage nations, namely, the *Mantagnois* and the *Papipanachois* in arms and ammunition, by way of exchange for the skins of sea-wolves or sea-calves, and some other furs.

Over against this island, to the southward of it, we find the isle called *L'Isle Percée*, which is a great rock with a passage bored through it, in which the sloops can only pass. In time of peace the *Biscayans* of France, and the *Normans*, used to fish for cod at this place; for here that fish are very plentiful, and at the same time larger, and more proper for drying than those of Newfoundland. But there are two great inconveniencies that attend the fishing upon this island; one is, that the ships ride in great danger, unless they have good anchors and strong cables; another inconvenience is, that this place affords neither gravel nor flint-stones to stretch out the fish upon before the sun, and that the fishermen are forced to make use of a sort of hurdles.

There are other fishing-places besides this, which lie some leagues higher up upon the same side of the river. Such is that called *Gaspè*, where the ships' crews sometimes trade in skins with the *Gaspesians*, to the prejudice of the proprietors of this river. The other places for cod-fish lie toward *Monts Notre Dame*, in the little bays or rivers that empty themselves into the river of St. Laurence.

On the other side of the river there lies the wide-extended country of Labrador, or of the *Eskimaux*, who are such a wild barbarous people, that no means whatsoever have hitherto been able to civilize them. One would think that good old Homer had this people in his view when he speaks of the Cyclops; for the character of the one suits the other admirably well, as it appears from these four verses, in the ninth book of his *Odyssy*, which are so pretty, that I cannot forbear inserting them in this place.

Τοῖς ἰν' οὗτοισι βυλνφόροις ἔτε θεμιδες
 Ἀλλ' οἳ γ' ὑψηλῶν ὄρεων ναίοισι κάπηνα
 Ἐν σπέσσι γλαφυραῖσι θεμισέμεναι δὲ ἔκαστος
 Παιδῶν ἢ δ' ἀλόχων εὖδ' ἀλλήων ἀλέγοισι.

That is; this people do not perplex themselves with voluminous laws, and vexatious suits; they delight only in the tops of mountains, and deep caves, and every one confines

fines his care to the management of his own family, without troubling his head about his neighbour. The Danes were the first discoverers of this country, which is full of ports, havens and bays, that the Quebec barks resort to in the summer, in order to truck with the savages for the skins of sea-calves. The commerce I speak of, is carried on after this manner. As soon as the Quebec barks come to an anchor, these devils come on board of them in their little canoes made of the skins of sea-calves, in the form of a weaver's shuttle, with a hole in the middle of it, resembling that of a purse, in which they stow themselves with ropes, sitting squat upon their breech. Being set in this fashion, they row with little slices, sometimes to the right, and sometimes to the left, without bending their body for fear of oversetting. As soon as they are near the bark, they hold up their skins upon the end of the oar, and at the same time make a demand of so many knives, powder, ball, fuses, axes, kettles, &c.; in fine, every one shews what he has, and mentions what he expects in exchange: and so when the bargain is concluded, they deliver and receive their goods upon the end of a stick. As these pitiful fellows use the precaution of not going on board our boats, so we take care not to suffer too great a number of canoes to surround us; for they have carried off oftener than once, some of our small vessels, at a time when our seamen were busied in hauling in the skins, and delivering out the other goods. Here, we are obliged to be very vigilant in the night-time, for they know how to make great sloops, that will hold thirty or forty men, and run as fast as the wind: and it is for this reason that the Malouins, who fish for cod at Petit Nord, and the Spaniards who follow the same fishery at Portochoua, are obliged to sit in long barks to scour the coast and pursue them; for almost every year they surprize some of the crew on shore, and cut their throats, and sometimes they carry off the vessel. We are assured that their number of warriors, or men that bear arms, amount to thirty thousand; but they are such cowardly fellows that five hundred Clifinos from Hudson's bay, used to defeat five or six thousand of them. They are possessed of a very large country, extending from over against the isles of Mingan to Hudson's Streight. They cross over to the island of Newfoundland every day, at the streight of Belle Isle, which is not above seven leagues over; but they never come so far as Placentia, for fear of meeting with other savages there.

Hudson's Bay adjoins to this terra of Lambrador, and extends from the $52^{\circ} 30'$ to the sixty-third of latitude. The origin of its name was this Captain Henry Hudson, an Englishman by birth, obtained a ship from the Dutch, in order to trace a passage to China through an imaginary streight to the northward of North America. He had first formed a design of going by the way of Nova Zembla; but upon seeing the memoirs of a Danish pilot, who was a friend of his, he dropped that thought. This pilot, namely, Frederick Anschild, had set out from Norway, or Yslandia, some years before, with a design to find out a passage to Japan by Davis's Streight, which is the chimerical streight I spoke of. The first land he descried was Savage Bay, seated on the north side of the terra of Labrador; then sweeping along the coast, he entered a streight, which about twenty or thirty years afterwards, was christened Hudson's Streight. After that, steering to the westward, he came upon some coasts that run north and south; upon which he stood to the north, flattering himself with the hopes of finding an open passage to cross the sea of Jesso; but after failing to the latitude of the polar circle, and running the risk of perishing upon the ice, (I do not know how often,) without meeting with any passage or open sea, he took up a resolution of turning back; but the season was then so far advanced, and the ice so covered up the surface of the water, that he was forced to put into Hudson's Bay, and winter there in a harbour, where several savages furnished his crew with provisions and excellent skins. As soon as the sea was open, he returned to Denmark. Now, Captain Hudson being afterwards acquainted with this Dane,

undertook upon his journals to attempt a passage to Japan through the streight of Davis; but the enterprize failed, as well as that of one Button, and some others. However, Hudson put into the bay that now goes by his name, where he received a great quantity of skins from the savages; after that, he discovered New Holland, which is now called New York, and some other countries retaining to New England: upon the whole, it is not fair to call this streight and this bay by the name of Hudson; in regard that the abovementioned Dane, Frederick Anschild, was the first discoverer of them: he being the first European that descried the countries of North America, and chalked out the way to the others. Upon this Hudson's journals, the English made several attempts to settle a commerce with the Americans. The great quantity of beaver-skins and other furs that he purchased of the savages while he wintered in the bay, put the notion into the heads of some English merchants, who thereupon formed a company for the carrying on of this new commerce. With this view, they fitted out some ships under the command of Captain Nelson, who lost some of them in the ice not far from the streight having escaped narrowly himself. However, he entered the bay, and placed himself at the mouth of a great river, which rises towards the lake of the Asimpouals, and falls into the bay at a place where he built a redoubt, and mounted some cannon upon it. In the space of three or four years after the English made some other little forts near that river, which proved a considerable baulk to the commerce of the French, who found that the savages who used to deal with them in furs on the north side of the Upper Lake, were not then to be seen.

It came to pass in process of time, but how I cannot tell, that one Ratisson, and one Grozileer, met, in that great lake, some Clifinos, who promised to conduct them to the bottom of the bay, where the English had not yet penetrated. In effect, the Clifinos were as good as their word; for they shewed them the place they spoke of, besides several other rivers upon which there was a fair prospect of making such settlements as would carry on a great trade in skins with several savage nations. These two Frenchmen returned to the Upper Lake, the same way that they went, and from thence made the best of their way to Quebec, where they offered to the chief merchants of the place, to carry ships to Hudson's Bay; but their project was rejected; in fine, having met with this repulse, they went to France, in hopes of a more favourable hearing at court: but after the presenting of memorial upon memorial, and spending a great deal of money, they were treated as whimsical fellows. Upon that occasion the King of England's ambassador did not lose the opportunity of persuading them to go to London, where they met with such a favourable reception, that they got several ships, which they carried to the bay, not without difficulty, and built several forts in different places, that did great service in promoting the commerce. Then the court of France repented, though too late, that they did not give ear to their memorials; and finding no other remedy, resolved to dislodge the English at any rate. In effect, they attacked them vigorously by sea and land, and dispossessed them of all their forts, excepting Fort Nelson, where they could not expect such an easy conquest. Some years after, the English resolved to use their utmost efforts to retake these posts; and their resolution was crowned with success, for they dislodged the French in their turn; and at this day the French are making preparations to repay them in their own coin.

That country is so cold for seven or eight months of the year, that the sea freezes ten feet deep, the trees and the very stones split; the snow is ten or twelve feet deep upon the ground, for above six months of the year, and during that season no body can stir out of doors, without running the risk of having their nose, ears and feet mortified by the cold. The passage from Europe to that country is so difficult and dangerous, by reason

of the ice and the currents, that one must be reduced to the last degree of misery, or be blind to a foolish height, that undertakes such a wretched voyage.

It is now time to pass from Hudson's Bay, to the Superior or Upper Lake: It is easier to make this voyage upon paper than to go actually through it; for you must sail almost a hundred leagues up the river of Machakandibi, which is so rapid and full of cataracts, that a light canoe worked by six watermen, shall not sail them under thirty or thirty-five days. At the head of this river we meet with a little lake of the same name, from whence we are obliged to a land-carriage of seven leagues, to get at the river of Michipikoton, which we run down in ten or twelve days; though at the same time we have several land-carriages upon it: for going down this river we pass several cataracts, where we are obliged either to carry our canoes by land, or to drag them back again. Thus we arrive at the Upper Lake, which is reckoned to be five hundred leagues in circumference, including the windings of the creeks and little gulphs. This little fresh-water sea is calm enough from the beginning of May to the end of September. The south side is the safest for the canoes, by reason of the many bays and little rivers, where one may put in, in case of a storm. There is no settled savage nation upon the brinks of the lake, that I know of. It is true indeed, that in summer, several northern nations come to hunt and fish in these parts, and bring with them the beaver-skins they have got in the winter, in order to truck with the *coureurs de bois*, who do not fail to meet them there every year. The places where the interview happens, are Bagouasch, Lemipisaki, and Chagouamigon. It is some years since M. Dulhut built a fort of pales or stakes upon this lake, where he had large magazines of all sorts of goods. That fort was called Camanistigoyan, and did considerable disservice to the English settlements in Hudson's Bay; by reason that it saved several nations the trouble of transporting their skins to that bay. Upon that lake we find copper mines, the metal of which is so fine and plentiful, that there is not a seventh part lost from the ore. It has some pretty large islands, which are replenished with elks and wild asses; but there is scarce any that goes to hunt upon them, by reason of the danger of crossing over: in fine, this lake abounds with sturgeons, trouts, and white fish. The climate is almost unsufferably cold for six months of the year; and the snow joined to the frost, commonly freezes the water of the lake for ten or twelve leagues over.

From the Superior or Upper Lake, I steered to that of Hurons, to which I allot four hundred leagues in circumference. Now to make this lake, you must sail down by the fall called Saut St. Mary, which I described in my fifteenth letter. This lake is situated in a fine climate, as you will perceive from the map. The north side of it is best for the navigation of canoes, by reason of the frequency of isles which afford shelter in bad weather. The south side is pleasanter and more convenient for the hunting of deer, which are there very plentiful. The figure of this lake comes near to an equilateral triangle. Of all its isles, that called Manitoualin is the most considerable, being above twenty leagues long, and ten broad. In former times, the Outaouas of the nations of Talon and Sable dwelt in it; but the dread they were under upon the account of the Iroquese, obliged both them and their neighbours to retire to Missilimakinac. That part of the continent that faces this island, is inhabited by the Nockes and the Missitagues, in two different villages which are twenty leagues distant the one from the other. Towards the east end of this island, we fall in with the river des Francois, which I took notice of in my sixteenth letter. It is as broad as the Seine is at Paris, and runs not above forty leagues in length from its source in the lake Nepicerini, to its mouth. To the north-west of this river there lies the bay of Toranto, which is twenty or five-and-twenty leagues long, and fifteen broad at its mouth.

mouth. This bay receives a river that springs from a little lake of the same name, and form several cataracts that are equally impracticable both upon the ascent and descent. Upon the side of this river you will see a man's head marked in my map, which signifies a large village of the Hurons, that was destroyed by the Iroquese. You may go from the source of this river to the Lake Frontenac, by making a land-carriage to the river of Tanaouate, that falls into that lake. Upon the south side of the Bay of Toronto, you see the fort called Fort Suppose, which I mentioned in my twenty-third letter, and about thirty leagues to the southward of that, you find the country of Theonontate, which being formerly inhabited by the Hurons, was entirely depopulated by the Iroquese.

From thence I pass directly to my fort, without amusing you with the different landscapes I met with in the space of thirty leagues. That fort I have spoke so often of already, that without stopping there, I shall run directly to the Bay of Sakinac, reckoning it needless at the same time to take any notice of the many shelves and rocks that lie hid under the water for two leagues off the coast. This bay is sixteen or seventeen leagues long, and six broad at its mouth; in the middle of which we meet with two little islands, that are very serviceable to the passengers; for if it were not for the conveniency of putting in there, they would be obliged for the most part, rather to march quite round the bay, than to run the hazard of crossing directly over in a canoe. The river of Sakinac falls into the bottom of the bay. This river runs sixty leagues in length, with a gentle current, having only three little cataracts that one may shoot without danger. It is as broad as the Seine is at Seve bridge. Once in two years the Outaouas and the Hurons are wont to hunt great quantities of beavers upon the confines of the river of Sakinac. Between the river I now speak of, and Missilimakinac, we meet with no place that is worth our regard. As for Missilimakinac itself, I have already imparted to you all that I can say of that post, which is of so great importance to our commerce, and at the same time sent you a draught of it. I shall therefore pursue my course to the Lake Errie, remembering that I described the Illinese lake in my sixteenth letter.

The lake Errie is justly dignified with the illustrious name of Conti; for assuredly it is the finest lake upon earth. You may judge of the goodness of the climate, from the latitudes of the countries that surround it. Its circumference extends to two hundred and thirty leagues; but it affords every where such a charming prospect, that its banks are decked with oak-trees, elms, chefnut-trees, walnut-trees, apple-trees, plum-trees, and vines which bear their fine clusters up to the very top of the trees, upon a sort of ground that lies as smooth as one's hand. Such ornaments as these are sufficient to give rise to the most agreeable idea of a landscape in the world. I cannot express what vast quantities of deer and turkies are to be found in these woods, and in the vast meads that lie upon the south side of the lake. At the bottom of the lake, we find wild beeves upon the banks of two pleasant rivers that disembogue into it, without cataracts or rapid currents. It abounds with sturgeon and white fish; but trouts are very scarce in it, as well as the other fish that we take in the lakes of Hurons and Illinese. It is clear of shelves, rocks, and banks of sand; and has fourteen or fifteen fathom water. The savages assure us, that it is never disturbed with high winds, but in the months of December, January, and February, and even then but seldom, which indeed I am very apt to believe, for we had but very few storms when I wintered in my fort in 1688, though the fort lay open to the Lake of Hurons. The banks of this lake are commonly frequented by none but warriors, whether the Iroquese, the Illinese, the Oumamis, &c. and it is very dangerous to stop there. By this means it comes to pass, that the stags,
roe-

roe-bucks, and turkies run in great bodies up and down the shore, all round the lake. In former times the Errieronons and the Andastogueronons, lived upon the confines of the lake, but they were extirpated by the Iroquese, as well as the other nations marked in the map.

Upon the north side of the lake we descry a point of land that shoots fifteen leagues into the main; and about thirty leagues beyond that to the eastward, we meet with a small river that takes its rise near the Bay of Ganaraske, in the Lake of Frontenac; and would afford a short passage from the one lake to the other, if it were not encumbered with cataracts. From thence to the streight or mouth of the lake, you have thirty leagues; the streight being a league over, and fourteen leagues long. Upon this streight you see Fort Suppose marked in the map, which is one of the forts that I mentioned in my 23d letter. From that imaginary fort to the river of Condè, we have twenty leagues.

The river of Condè runs sixty leagues in length without cataracts, if we may credit the savages; who assured me, that one may go from its source to another river that falls into the sea, without any other land-carriage than one of a league in length, between the river and the other. I saw only the mouth of the first river, where our Outaouas tried their limbs, as I told you in my fifteenth letter. The islands that you see marked in the map at the bottom of the Lake Errie, are replenished with roe-bucks and with fruit trees which nature has generously provided, in order to entertain the turkies, pheasants, and deer with their fruit. In fine, if there were a clear and free passage for vessels from Quebec to this lake, it might be made the finest, the richest, and the most fertile kingdom in the world; for over and above all the beauties I have mentioned, there are excellent silver mines about twenty leagues up the country, upon a certain hill, from whence the savages brought us great lumps, that have yielded that precious metal with little waste.

From the Lake Errie, I steer my course to that of Frontenac, which I could not forbear to speak of in my seventh and seventeenth letters. This lake (as I intimated above) is two hundred and eighty leagues in circumference, its figure is oval, and its depth runs between twenty and twenty five fathom. On the south side it receives several little rivers, particularly those of the Tsonontouans, of the Onnontagues, and of the Famine; on the north side it is joined by the rivers of Ganaraske and of Teonontate. Its sides are decked with tall trees, and the ground is indifferent even and level, for it has no steep coasts. On the north side we meet with several little gulfs. You may go from this lake to that of Hurons, by going up the river Tanaouate, from whence you have a land-carriage of six or eight leagues to the river of Toronto, which falls into it. You may likewise have a passage from the Lake of Frontenac, to that of Errie, through the Bay of Ganaraske, by making a land-carriage from thence to a little river that is full of cataracts. The villages of the Onnontagues, Tsonontouans, Goyogouans, and Onnoyoutes, are not far distant from the Lake of Frontenac. These Iroquese nations are very advantageously seated. They have a pleasant and fertile country; but they want roe-bucks and turkies, as well as fish, of which their rivers are altogether destitute, insomuch that they are forced to fish in the lake, and to broil or dry their fish with a fire, in order to keep them and transport them to their villages. They are in like manner forced to range out of their own territories, in quest of beaver in the winter time, either towards Ganaraske, or to the sides of the Lake of Toronto, or else towards the great river of the Outaouas; where it would be an easy matter to cut all their throats, by pursuing the course I laid down in my letters. I have already touched upon the Forts of Frontenac and Niagara; as well as upon the river of St. Lawrence, which here

takes leave of the lakes, and pursues a more compact course to Monreal and Quebec, where its waters mingling with those of the sea become so brackish that they are not drinkable.

It remains only to give you a description of Acadia, and the island of Newfoundland, which are two countries that differ widely from one another. The coast of Acadia extends from Kenebeki, one of the frontiers of New-England, to l'Isle Percée, near the mouth of the river of St. Laurence. This sea-coast runs almost three hundred leagues in length, and has upon it two great navigable bays, namely, the bay called Francoise, and the bay des Chaleurs. It has a great many little rivers, the mouths of which are deep, and clean enough for the greatest ships. These rivers would afford a plentiful salmon-fishery, if there was any body to undertake it; and most of them as well as the gulphs that lie before them, furnish such cods as we take at the isle Percee. For in the summer time, that sort of fish make into the coast in shoals, especially about the islands of Cape Breton and of St. John. It is true, the latter has no harbours, and the former has none that receive any vessel above the burden of a bark; but if these two islands were peopled, the inhabitants might fit out sloops to manage the fishery; and towards the latter end of August, when the fish are cured and ready, the ships might come to an anchor near the land, and so take them in. Two gentlemen of the name of Amour of Quebec, have a settlement for beaver-hunting upon the river of St. John; which is a very pleasant river, and adorned with fields that are very fertile in grain. It is navigable for twelve leagues up, from its mouth. Between the point of Acadia, and the island of Cape Breton, there is a channel or streight about two leagues in breadth, which is deep enough to carry the greatest ships in France. It is called the Pass des Canceaux, and would be much more frequented than it is, if the merchantmen bound to Canada, would set out from France about the 15th of March; for then they might pass that way, being assured of a clear passage at all seasons of the year, whereas the channel of Cape de Raye, is oftentimes covered with ice in April: and by this contrivance, the ships would arrive at Quebec in the beginning of May.

Most of the countries of Acadia abound with corn, pease, fruit and pulse; and have a plain distinction of the four seasons of the year, notwithstanding that it is extremely cold for three months in winter. Several places of Acadia afford masts as strong as those we have from Norway; and if there were occasion, all sorts of ships might be built there: for if you will believe the carpenters, the oak of that country is better than ours in Europe. In a word, it is a very fine country; the climate is indifferently temperate, the air is pure and wholesome, the waters clear and light, and there is good accommodation for hunting, shooting and fishing. The animals that we meet with there most commonly are beavers, otters, and sea-calves, all of them being very numerous. Those who love meat are indebted to the doctors, who persuaded the popes to metamorphose these terrestrial animals into fish; for they are allowed to eat of them without scruple in the time of Lent. To be plain, the knowledge I have of that country makes me foresee that the English will be masters of it some time or other. I could give very plausible reasons for the prophecy. They have already begun to ruin the commerce that the French had with the savages, and in a short time, they will compass its intire destruction. The French they will prize their goods too high, though they are not so good as those of the English; and yet the English sell their commodities cheaper. It were a pity that we should tamely leave to the English a country, the conquest of which they have attempted so often, in consideration of our fir-trade and cod-fishing. It is impossible to hinder them to possess themselves of the settlements
upon

upon the coast of Acadia, by reason that they lie at such a distance from one another ; so that they will certainly succeed in such enterprizes, as indeed they have done already. The French governors, they act with the same view as many of those who are employed in posts beyond sea. They look upon their place as a gold-mine given them, in order to enrich themselves ; so that the publick good must always march behind private interest. M. de Meneval suffered the English to possess themselves of Port Royal, because that place was covered with nothing but single pallisadoes. But why was it not better fortified ? I can tell you the reason ; he thought he had time enough to fill his pockets before the English would attack it. This governor succeeded to M. Perrot, who was broke with disgrace, for having made it his chief business to enrich himself ; and after returning to France, went back again with several ships laden with goods, in order to set up for a private merchant in that country. While M. Perrot was governor, he suffered the English to possess themselves of several advantageous posts, without offering to stir. His chief business was to go in barks from river to river, in order to traffic with the savages : and after he was disgraced, he was not contented with a commerce upon the coasts of Acadia, but would needs extend it to the English plantations ; but it cost him dear, for some pirates fell in with him, and after seizing his barks, ducked himself, upon which he died immediately.

The three principal savage nations that live upon the coasts of Acadia are the Abenakis, the Mikemak, and the Canibas. There are some other erratic nations, who go and come from Acadia to New England, and go by the names of Mahingans, Soccokis, and Openango. The first three (having fixed habitations) are entirely in the interests of the French ; and I must say, that in time of war they gall the English colonies with their incursions so much that we ought to take care to perpetuate a good understanding between them and us. The baron of Saint Casteins, a gentleman of Oleron in Bearn, having lived among the Abenakis after the savage way, for above twenty years, is so much respected by the savages, that they look upon him as their tutelar god. He was formerly an officer of the Carignan regiment in Canada ; and upon the breaking of that regiment, threw himself among the savages, whose language he had learned. He married among them after their fashion, and preferred the forests of Acadia to the Pyrenæan mountains that encompass the place of his nativity : for the first years of his abode with the savages he behaved himself so as to draw an inexpressible esteem for them. They made him their great chief or leader, who is in a manner the sovereign of the nation ; and by degrees he has worked himself into such a fortune, which any man but he would have made use of, as to draw out of that country above two or three hundred thousand crowns, which he has now in his pocket, in good dry gold. But all the use he makes of it is, to buy up goods for presents to his fellow savages, who upon their return from hunting, present him with beaver-skins to a treble value. The governors-general of Canada keep in with him, and the governors of New England are afraid of him. He has several daughters, who are all of them married very handsomely to Frenchmen, and had good dowries. He has never changed his wife ; by which means he meant to give the savages to understand, that God does not love inconstant folks. It is said, that he endeavoured to convert these poor people, but his endeavours proved successless ; so that it is in vain for the Jesuits to preach up the truths of Christianity to them ; though after all, these good fathers are not discouraged ; nay, they think that the administering of baptism to a dying child is worth ten times the pains and uneasiness of living among that people.

Port Royal, the capital or the only city of Acadia, is in effect no more than a little paltry town, that is somewhat enlarged since the war broke out in 1689, by the accession of the inhabitants that lived near Boston, the metropolitan of New England. A great many of these people retired to Port Royal upon the apprehension that the English would pillage them, and carry them into their country. M. de Meneval surrendered this place to the English, as I said before; he could not maintain such a post with the handful of men that he had, because the pallisadoes were low, and out of order. He made a capitulation with the commander of the party that made the attack; but the English officer broke his word to him, and used him both ignominiously and harshly. Port Royal is seated in the latitude of 44 degrees and 40 minutes, upon the edge of a very fine basin, which is a league broad, and two leagues long, having at the entry about sixteen or eighteen fathoms water on one side, and six or seven on the other; for you must know that the island called l'Isle aux Chevres, which stands in the middle, divides the channel into two. There is excellent anchorage all over the basin; and at the bottom of it there is a cape or point of land that parts two rivers, at which the tide rises ten or twelve feet. These rivers are bounded by pleasant meads, which in spring and autumn are covered with all sorts of fresh water-fowl. In fine, Port Royal is only a handful of houses two story high, and has but few inhabitants of any note. It subsists upon the traffick of the skins which the savages bring thither to truck for European goods. In former times the farmer's company had magazines in this place, which were under the care of the governors. I could easily mention some of them, if I were not apprehensive that these memoirs may be seen by others besides yourself.

The island of Newfoundland is three hundred leagues in circumference. It lies at the distance of six hundred and fifty leagues from France, and forty or fifty leagues from the bank of the same name. The south side of the island belongs to the French, who have several settlements there for the fishing of cod. The east side is inhabited by the English, who are possessed of several considerable posts, situated in certain ports, bays, and havens, which they have taken care to fortify. The west of the island is waste, and it was never yet possessed. The island is of a triangular figure, and is full of mountains and impracticable forests. It has some great meadows, or rather heaths, which are covered with a sort of moss instead of grass. The soil of this country is good for nothing, as being a mixture of gravel, sand and stones; so that the fishery was the only motive that induced the French and the English to settle there. It affords great store of game, water-fowl, partridges and hares; but as for the stags, it is almost impossible to come at them, by reason that the mountains are so high, and the woods so thick. In this island, as well as in that of Cape Breton, we find porphyry of several colours; and care has been taken to send to France some pieces of it for a pattern, which were found to be very pretty, only they were hard to cut. I have seen some of them that were red streaked with green, and seemed to be extremely fine; but the mischief is, it splits so when it is taken out of the quarries, that it cannot be made use of, but by way of incrustation.

This island of Cape Breton affords likewise black marble, or a sort of bresche with grey veins, which is hard and not easily polished. This stone is apt to split, for it is not equally hard, and it has knots in it. There are no settled savages in the island of Newfoundland. It is true, the Eskimaux do sometimes cross over to it at the streight of Belle Isle in great floops, with intent to surprize the crew of the fishermen upon the coast called Petit Nord. Our settlements are at Placentia, at the island of St. Peter, and in

in the bay of Trepassez. From Cape Rase to Chapeau Rouge the coast is very clean, but from Chapeau Rouge to Cape Raye the racks render it dangerous. There are two considerable inconveniences, that attend the landing upon this island. In the first place, the fogs are here so thick in the summer, for twenty leagues off into the main, that the ablest and most expert sailor dare not stand into the land while they last; so that all ships are obliged to lie by for a clear day, in order to make the land. The second inconveniency, which is yet greater, proceeds from the currents which run to and again, without any perceivable variation, by which means the ships are sometimes drove in upon the coast, when they reckon upon ten leagues offing. But, which is worst of all, the insensible motion of the rolling waves throws them insensibly upon the rocks, which they cannot possibly avoid, for want of ground to anchor upon. It was by this means that the King's ship, the *Pretty*, was lost in 1692, as well as a great many others upon several occasions.

Of all our settlements in North America Placentia is the post of the greatest importance and service to the King, in regard that it is a place of refuge to the ships that are obliged to put into a harbour, when they go or come from Canada, and even to those which come from South America, when they want to take in fresh water or provisions, and have sprung their masts, or been damaged in a storm. This place is situated in the latitude of 47 degrees and some minutes, almost at the bottom of the bay that goes by the same name. The bay is ten or twelve leagues broad, and twenty odd leagues long. The fort stands upon the side of a neck or narrow streight, which is sixty paces over and six fathoms water deep. The ships that enter into the port are obliged to graze (so to speak) upon the angle of the bastions. The port or harbour is a league long, and a quarter of a league over: before the port there is a large, fine road, which is a league and a half wide: but lies so bleak to the north-west and west-north-west winds, the strongest and most boisterous winds that are, that neither cables nor anchors, nor large stout ships can withstand their furious shocks; though indeed these violent storms seldom happen but in the latter end of autumn. The same year that the *Pretty* was lost, the King lost another of 69 guns, called the *Good*, in this road; and if the four or five other ships that belong to the same squadron, had not taken the precaution of steering into the port, they had certainly underwent the same fate. This road then which is only exposed to the north-west and west-north-west winds, has some hidden rocks on the north side, besides those at Point Verte, where several of the inhabitants are wont to fish. All these things you may see plainly upon the plan that I sent you along with my 23d letter.

Commonly there comes thirty or forty ships from France to Placentia every year, and sometimes sixty. Some come with intent to fish, and others have no other design than to truck with the inhabitants, who live in the summer-time on the other side of the fort. The ground upon which their houses stand, is called *La grand Grave*, for in effect they have nothing but gravel to spread their cod-fish upon, in order to have them dried by the sun after they are salted. The inhabitants and the French fishermen send their sloops every day two leagues off the port to pursue the fishery; and sometimes the sloops return so over-loaded, that they are in a manner buried in the water. You cannot imagine how deep they sink, and it is impossible you should believe it unless you saw it. The fishery commences in the beginning of June, and is at an end about the middle of August. In the harbour they catch a little sort of a fish, which they put upon their hooks as a bait for the cod.

Placentia is in great want of gravel, which occasions the thinness of the inhabitants. If the governors preferred the King's service to avarice they might make it a considerable

siderable post, and a great many would make gravel-walks at their own charge; but as long as the governors prey upon the fortunes of private men under the fair pretence of the King's service, which is always in their mouths, I cannot see that this settlement will ever be enlarged or improved. Does not the governor disgrace his Prince, and sink the character of his post, in turning fisherman, merchant, vintner, and acting in the way of a thousand meaner and more mechanical trades? Is not this a piece of tyranny? To force the inhabitants to buy what goods they want out of such and such a ship, and to sell their cod to such other ships as the governor is interested in, and that as a principal owner; to appropriate to himself the rigging and tackle of the ships that are cast away upon the coast, to stop the crew of merchantmen for his own fishery, to sell habitations or settlements, to stifle the bidding up for effects sold by way of auction that he may ingross them by his sole authority, to change the provisions laid up in magazines for his Majesty's troops, to carry off the good biscuit and put bad in the room of it, to make so much beef and bacon for the subsistence of the garrison, to force the inhabitants to send their servants and carpenters to some work in which his Majesty's service is less concerned than his own pocket: these, I say, are things that I take to be plain infractions of the orders issued forth by Lewis the XIV.; these are abuses that must be redressed, if we would have the King to be well served: and yet there is nothing done in it. For my part, I am unacquainted with the reason of the delay; those that have a mind to know had best ask the deputies of Monsieur de P***. I am fully persuaded, that all these piracies do not come to the King's ears, for he is too just to suffer them.

To conclude, Placentia bears neither corn, nor rye, nor pease, for the soil is good for nothing; not to mention, that if it were as good and as fertile as any in Canada, yet nobody would give themselves the trouble to cultivate it; for one man earns more in cod-fishing in one summer than ten would do in the way of agriculture. In the great bay of Placentia there are some little harbours, (besides that of the fort) which the Biscay fishermen resort to. Such are the little and the great Burin, St. Laurence, Martir, Chapeau Rouge, &c.

A List of the Savage Nations of Canada.

Those in Acadia.

The Abenakis.

The Micmac.

The Canibas.

The Mahingans.

The Openangos.

The Soccokis.

The Etechemins.

These are all of them good warriors: they are more active and less cruel than the Iroquese. Their language differs a little from that of the Algonkins.

The Nations that lie upon the River of St. Laurence, from the Sea to Montreal.

The Papinachois.

The Mountaneers.

The Gaspesians.

The Hurons of Loreto, the Iroquese tongue.

The Abenakis of Scilleri.

The Algonkins.

These speak the Algonkin language.

The Algonkin language.

The

The Agnies of the fall called Saut St. Louis ; they speak the Iroquefe language, and are good warriors.

The Iroquefe of the mountain of Monreal ; they speak the Iroquefe language, and are a brave people.

Those upon the Lake of Hurons.

The Hurons, the Iroquefe language.

The Outaouas.

The Nockes.

The Miffifagues.

The Attikamek.

} The Algonkin language.

The Outekipoues, alias Sauteurs ; good warriors.

Upon the Illinefe Lake, and the adjacent Country.

Some Illinefe at Chegakou.

The Oumamis ; good warriors.

The Maskoutens.

The Kikapous ; good warriors.

The Outagamis ; good warriors.

The Malomimis.

The Ponteuatamis.

The Ojatinons ; good warriors.

The Sakis.

} They speak the Algonkin language, and are a
sprightly active fort of people.

In the Neighbourhood of the Lake of Frontenac.

The Tfonontouans.

The Goyoguans.

The Onnotagues.

The Onnoyoutes and Agnies, at a small distance.

} These speak a different language from the Algonkin.

Near the River of the Outaous.

The Tabitibi.

The Monzoni.

The Machakandibi.

The Nopemen d'Achirini.

The Nepifirini.

The Temiskamink.

} They speak the Algonkin language, and all of them
are very cowardly.

To the North of Missifipi, and upon the Confines of the Upper Lake, and Hudson's Bay.

The Nadoueffis.

The Affimpouals.

The Sonkaskitons.

The Ouadbatons.

The Atintons.

} These speak Algonkin.

The

The Cliftinos; brave warriors
and active brisk men. } These speak Algonkin.
The Ekimaux.

A List of the Animals of the South Countries of Canada.

Wild beeves.
Little stags or harts.
Roebucks of three different species.
Wolves, such as we have in Europe.
Lynxs, such as we have in Europe.
Michibichi, a sort of bastard tyger.
Ferrets, } such as we have in Europe.
Weasels, }
Ash-coloured squirrels.
Hares, }
Rabbits, } such as we have in Europe.
Badgers, }
White beavers, very scarce.
Reddish bears.
Musk rats.
Reddish foxes, as in Europe.
Crocodiles in the Mississipi.
Ossa, an animal like a hare, upon the Mississipi.

A List of the Animals of the North Countries of Canada.

Orignals or elks.
Caribous or wild Affes.
Black foxes.
Silver-coloured foxes.
A sort of wild-cats, called enfans du diable, or the devil's children.
Carcaious, an animal not unlike a badger.
Porcupines.
Fontereaux, an amphibious sort of little pole-cats.
Martins.
Pole-cats, such as we have in Europe.
Black bears.
White bears.
Siffleurs, an animal that makes a whizzing noise.
Flying squirrels.
White hares.
Beavers.
Otters.
Musk-rats.
Suiffe squirrels, or a sort of squirrels whose hair resembles a Suiffe's doublet.
Great harts.
Sea-wolves or calves.

A Description

*A Description of such Animals or Beasts as are not mentioned in the Letters.**

THE Michibichi is a sort of tiger, only it is less than the common tiger, and not so much speckled. As soon as it descries a man, it runs away, and climbs up the first tree it meets with. It attacks all brute animals whatsoever, and conquers them with ease; and, which is very singular and peculiar to it above all other animals, it runs in to the assistance of the savages, when they pursue bears and wild beeves; upon such occasions it makes as if it were afraid of nobody, and sallies out with fury upon the hunted animal. The savages call these animals sort of manitous, that is, spirits that love men; and it is upon that score they esteem and respect them to such a degree that they would choose rather to die than to kill one of them.

The white beavers are much valued upon the account of their being uncommon, though, at the same time, their hair is neither so large nor so fine as that of the common beavers. As there are but few of these white beavers, so those which are quite black are very scarce.

The reddish bears are mischievous creatures, for they fall fiercely upon the huntsmen, whereas the black ones fly from them. The former sort are less, and more nimble than the latter.

The crocodiles of Mississipi are exactly the same with those of the Nile and other places. I have seen that crocodile that is at Engolisma in Aquitaine, and find that it has the same figure with these, only it is somewhat less. The most usual method that the savages have for taking them alive is to throw great wreaths or cords made of the bark of trees with a running-knot upon their neck, the middle of their body, their paws, &c. After they are thus seized, they shut them up between ten or twelve stakes, and there tie them after their belly is turned upwards. While they lie in this posture they flay them without touching their head or their tail, and give them a coat of fir-bark, to which they set fire, having cut the ropes that kept them fast. Upon such occasions these animals make a fearful howling and crying. To conclude, the savages are frequently swallowed up by these creatures, whether in swimming over a river, or in sleeping upon its banks. Ariosto in the 68th diapason of his 15th song, gives this description of a crocodile:

Vive sub lito è dentro a la Riviera,
Ei Corpi Umani son le sue vivande,
De le persone misere è incaute,
Di viandanti è d'infelice naute.

That is, it lives both in the river and upon its banks; it squashes people with its murdering tooth; it feeds upon the bodies of poor travellers, of unfortunate passengers and sailors.

The ossa are little animals like hares, and resemble them in every thing excepting the ears and hind-feet. They run, and cannot climb. Their females have a bag under their belly, where their young ones enter upon a pursuit, in order to save themselves along with the mother, who immediately betakes herself to flight.

* The animals of the south countries.

The silver-coloured foxes* are of the same shape with those of Europe, as well as the black ones. The black ones are very scarce, and whoever catches one, is sure to sell it for its weight in gold. This species is met with only in the coldest countries.

The white bears are a monstrous animal, and extraordinary long; their head has a formidable aspect, and their hair is very large and thick; they are so fierce, that they will come and attack a sloop in the sea, with seven or eight men in it. It is said, that they will swim six or seven leagues without being tired. They live upon fish and shell upon the sea-shore, from whence they seldom straggle far. I never saw but one of them in my life-time, which had certainly torn me to pieces if I had not spied it at a distance, and so had time to run back for shelter to Fort Lewis at Placentia.

The flying-squirrels are as big as a large rat, and of a greyish white colour. They are as drowly as those of the other species are watchful. They are called flying-squirrels, in regard that they fly from one tree to another, by the means of a certain skin which stretches itself out in the form of a wing when they make these little flights.

The white hares are only such in winter, for as soon as the spring comes on, they begin to turn greyish, and by degrees recover the same colour as our hares have in France, which they hold till the end of autumn.

The Suisse squirrels are little animals, resembling little rats. The epithet of Suisse is bestowed upon them, in regard that the hair which covers their body is streaked with black and white, and resembles a Suisse's doublet; and that these streaks make a ring on each thigh, which bears a great deal of resemblance to a Suisse's cap.

The large stags are neither larger nor thicker than those we have in Europe; but they are called large in proportion to two other species of harts that frequent the southern countries. The lesser sort affords the most delicious meat.

The sea-wolves, which some call sea-calves, are as big as mastiffs. They are almost always in the water, or at least they never go far from the sea-side. These animals do not walk so much as they crawl, for when they raise themselves out of the water, they only creep upon the sand or clay. Their head has the form of an otter's head, and their feet, which have no legs, resemble those of a goose. The female kind bring forth their young ones upon the rocks, or upon some little islands, just by the sea. The sea-wolves live upon fish, and resort to cold countries. There is a prodigious number of them about the mouth of the river of St. Lawrence.

As for the remaining animals of Canada, I gave you an account of them in my letters. I will not offer to shew you what methods the savages take to catch or kill all these animals, for such an undertaking would be endless. This I can assure you of in the general, that they rarely go a hunting to no purpose, and that they make no use of their dogs but in the hunting of elks, and sometimes in hunting of beavers, as you shall see under the head of the diversions of hunting and shooting among the savages.

A List of the Fowl or Birds that frequent the South Countries of Canada.

Vultures.

Huards, a river-fowl as big as a goose.

Swans,

Black geese, } such as we have in Europe.

Black ducks,

* The animals or beasts of the north countries.

Plungeons,

Plungeons, } such as we have in Europe.
Coots,

Rayles,

Turkeys.

Red partridges.

Pheasants.

Large eagles.

Cranes,

Blackbirds, } such as we have in Europe.
Thrushes,

Wood-pigeons.

Parrots.

Ravens, } such as we have in Europe.
Swallows,

Several sorts of birds of prey that are not known in Europe.

Nightingales unknown in Europe, as well as several other little birds of different colours, particularly that called oiseau mouche, a very little bird resembling a fly; and great quantities of pelicans.

The Birds of the North Countries of Canada.

Bustards, } such as we have in Europe.
White greese,

Ducks, of ten or twelve sorts.

Teals.

Sea-mews.

Grelans.

Sterlets.

Sea-parrots.

Moyacks.

Cormorants,

Heath-cocks,

Snipes,

Plungeons,

Plovers,

Lapwings, } such as we have in Europe.

Herns,

Courbeious,

The water-

fowl called

Chevalier,

Bateurs de Faux, a fowl as big as a quail.

White partridges.

Large black partridges.

Reddish partridges.

Woodhens.

Turtle doves.

White ortolans, a bird no bigger than a lark.

Sterlings, } such as we have in Europe.
 Ravens, }
 Vultures.
 Spar-hawks, }
 Merlins, } like ours in Europe.
 Swallows, }
 Becs de Scie, a sort of a duck.

A Table of the Insects that are found in Canada.

Adders.
 Asps.
 Rattle-snakes.
 Lowing frogs.
 Gnats, or midges.
 Gad-bees.
 Brulots, or burning hand-worms.

A Description of such Birds as are not accounted for in my Letters.

THE huards* are a fresh-water fowl as big as a goose, and as dull and heavy as an ass. They have black and white feathers, a pointed beak, and a very short neck. They only duck or dive in the summer, for they cannot use their wings; and in that season the savages take the diversion of surrounding them with seven or eight canoes, dispersed here and there, and so obliging them to dive down, when they offer to come up to take breath. The savages have entertained me several times with this agreeable amusement, during the course of the voyages I made with them.

The red partridges are wild and little, and much different from the red partridge we have in Europe, as well as the pheasant, whose feathers being of a white colour with black specks, make a very agreeable diversity.

The largest eagles we find in this country are no bigger than swans. Their head and their tail is white, and they have frequent engagements with a sort of vultures, that commonly have the better of it. In our voyages we had frequent occasions of seeing these engagements, which last as long as the eagle can keep up the force of its wings.

The parrots are met with in the Illinese country, and upon the river of Mississipi. They are very small, and are the same with those that we bring from Brazil and Cayenne.

That sort of nightingale that I saw is of a peculiar form; for it is of a lesser size than the European, and of a bluish colour, and its notes are more diversified; besides, that it lodges in the holes of trees, and four or five of them do commonly keep together upon the thickest trees, and with joint notes warble over their songs.

The flylike bird is no bigger than one's thumb, and the colour of its feathers is so changeable, that it is hard to fasten any one colour upon it. They appear sometimes red, sometimes of a gold colour, at other times they are blue and red; and properly speaking, it is only the brightness of the sun that makes us insensible of the change of its gold and red colours. Its beak is as sharp as a needle. It flies from flower to

* The fowl or birds of the Southern Countries.

flower, like a bee, and by its fluttering sucks the flowery sap. Sometimes about noon it pitches upon the little branches of plum-trees or cherry-trees. I have sent some of them dead to France, it being impossible to keep them alive; and they were looked upon as a great curiosity.

There are ten or twelve sorts of ducks* in this country. Those called branchus, are the smallest indeed, but they are much the prettiest. The feathers upon their neck look so bright, by virtue of the variety and liveliness of their colours, that a fur of that nature would be invaluable in Muscovy or Turkey. They owe the name of branchus to their resting upon the branches of trees. There is another species of ducks in this country, that are as black as jackdaws, only their beak and the circle of their eyes are red.

The sea-mews, grelans and sterlets, are fowls that fly incessantly over seas, lakes, and rivers, in order to catch little fish. Their flesh is good for nothing, besides that, they have no substance of body, though they seem to be as big as pigeons.

The sea-parrots bear the name of parrots, upon the account that their beak is of the same form with that of the land-parrot. They never quit the sea or the shore; and are always flying upon the surface of the water, in quest of little fish. Their colour is black, and their size is much the same with that of a pullet. There are great numbers of them upon the bank of Newfoundland, and near the coast of the island, which the seamen catch with hooks covered with a cod's roe, and hung over the prow of the ship.

The moyacks are a sort of fowl, as big as a goose, having a short neck, and a broad foot; and which is very strange, their eggs are half as big again as a swan's, and yet they are all yolk, and that so thick, that they must be diluted with water before they can be used in pancakes.

The white partridges are as big as our red partridges. Their feet are covered with such a thick down that they resemble those of a young rabbit. They are only seen in the winter time, and some years they are scarce seen at all; though on the other hand, in other years they are so plentiful, that you may buy a dozen for ninepence. This is the most stupid animal in the world; it sits upon the snow, and suffers itself to be knocked on the head with a pole, without offering to stir. I am of the opinion, that this unaccountable numbness is occasioned by its long flight from Greenland to Canada. This conjecture is not altogether groundless, for it is observed, that they never come in flocks to Canada, but after the continuance of a north or north-east wind.

The black partridges are truly very pretty. They are bigger than ours; and their beak, together with the circle of the eyes and the feet, are red; their plumage being of a shining black colour. These animals are very proud, and seem to have a sense of their beauty as they walk. They are but very uncommon, as well as the reddish partridges, which resemble quails in their bulk and briskness.

The white ortolans are only met with in winter; but I am of the opinion, that their feathers are naturally of a white colour, and that they retrieve their natural colour in the places they retire to, when they disappear in Canada. They are indifferent good to eat when they are fat, but that they seldom are. In the winter great quantities of them are caught about the barns, with nets stretched out upon the straw.

* The birds of the Northern Countries.

A Description of the Insects of Canada.

THE adders of Canada do no harm at all. The asps indeed are very dangerous, when the people bathe in the stagnating water towards the south countries. The rattlesnake or founding serpent is so called, in regard that at the extremity of its tail it has a sort of a case, containing certain bones which make such a noise when the serpent creeps along, that it is heard thirty paces off. These serpents betake themselves to flight when they hear the sound of men's feet, and commonly sleep in the sun either in green fields, or open woods. They never sting but when they are trod upon.

The lowing-frogs are so called with respect to their croaking, which sounds like the lowing of an ox. These frogs are twice as large as those we have in Europe. The Canada gad-bees are a sort of flies about twice as big as bees, but of the same form with a common fly. They sting only between noon and three o'clock in the afternoon; but then they do it so violently that they fetch blood. However it is only upon certain rivers that they are met with.

The brulots are a sort of hand-worms, which cleave so hard to the skin, that their pricking occasions the same sense, as if it were a burning coal, or a spark of fire. These little animals are imperceivable, though at the same time they are pretty numerous.

The Names of the Fish in the River of St. Lawrence, from its Mouth to the Lakes of Canada.

Balenots, or little whales.

A fish almost as big as a whale, called souffleur.

White porpoises.

Salmon, such as we have in Europe.

Eels.

Macrel, as in Europe.

Herrings.

Gasperots, a small fish like a herring.

Bases.

Shad-fish.

Cod-fish.

Plaices

Smelts.

Turbots.

Pikes.

The gold-coloured fish.

Roaches.

Lampreys.

Merles, or sea-tench.

Thornbacks.

Cungars.

Sea-cows, a kind of porpoises.

The Shell Fish.

Little lobsters.

Crab-fish.

Cockles.

Muscles.

The Fish that are found in the Lakes of Canada, and in the Rivers that fall into them.

Sturgeons.

The armed fish.

Trouts.

Eels.

Mullets.

Carp.

White-fish

White-fish.
A sort of herrings.

Gull-fish.
Gudgeons.

The Fish found in the River of Mississipi.

Pikes, such as we have in Europe.
Carps.
Dabs, and several others that are not known in Europe.

Tench.
Perches.

A Description of the Fish that are not mentioned in the Letters.

THE balenot * is a sort of a whale, only it is less and more fleshy, and does not yield oil in proportion to the northern whales. This fish goes fifty or sixty leagues up the river.

The souffleurs are much of the same size, only they are shorter and blacker. When they mean to take breath after diving, they squirt out the water through a hole behind their head after the same manner with the whales. Commonly, they doge the ships in the river of St. Lawrence.

The white porpoises are as big as oxen. They always go along with the current ; and go up with the tide till they come at fresh water, upon which they retire with the ebb water. They are a ghastly sort of animals, and are frequently taken before Quebec.

The gasperots are a small fish, not unlike a herring. In the summer time they make into the shore in such shoals, that the cod-fishers take as many of them as serves for bait for that fishery. These fishermen do likewise make use of herrings, when the season obliges them to put into the shore to spawn. In a word, all the fish that are made use of for a bait to make the codfish bite at the hook, are called boete in the fishermen's dialect.

The gold-coloured fish are nice food. They are about fifteen inches long ; their scales are yellow, and they are valued very high.

The sea-cows, which are a sort of porpoises, are bigger than the Normandy beeves. They have a sort of paws cut like a goose's foot, their head resembles that of an otter ; and their teeth, which are two inches thick, and nine inches long, are reckoned the finest ivory that is. It is said that they range wide of the shore, towards sandy and marshy places.

The lobsters of this river seem to be exactly the same with those we have in Europe.

The cockles are of a piece with those we have upon the coast of France, excepting that they are larger, and have a more agreeable taste, though their flesh seems to partake more of crudity and indigestion.

The muscles of this river are prodigious large, and taste very well ; but it is next to an impossibility to eat them without breaking one's teeth, by reason of their being stuffed with pearl ; I call it pearl, though the name of gravel or sand may be more proper, with respect to its value, for I brought to Paris fifty or sixty of the largest and finest, which were rated only at a penny a-piece ; notwithstanding that we had broke above two thousand muscles to make up that number.

The lake-sturgeons are commonly five or six foot long ; but I once saw one of ten foot, and another of twelve in length. The savages catch them with nets in the

* Those between the mouth of the river and the lakes.

winter, and grapples in the summer. It is said, they have a certain sort of flesh about their head, that tastes like beef, mutton, and veal; but I have eat of it several times, and never could observe any such thing; which makes me look upon the allegation as chimerical.

The fish-in-armour is about three foot and a half long. It is defended by such strong and hard scales, that it is impossible for any other fish to hurt it. Its enemies are trouts and roaches, but it is admirably well provided for the repulsing of their attacks, by virtue of its pointed snout, which is a foot long, and as hard as its skin. It eats very well, and its flesh or substance is as firm as it is white.

The lake dabs or sandings are not above a foot long, but they are very thick all over. They are called barbues in French, which an allusion to a certain sort of beards that hang down from the side of their muzzle, and are as big as ears of corn. Those which we find in the river of Mississipi are of a monstrous size. Both the one and the other are caught with a hook, as well as with a net; and make very good victuals.

The Mississipi carps are likewise of an extraordinary size, and admirably well tasted. They are of the same form with ours. In the autumn they put in towards the shore, and are easily caught with a net.

The largest trouts we meet with in the lakes are five foot and a half long, and of one foot diameter. Their flesh is red, and they are caught with great hooks made fast to pieces of wire.

The fish caught in the lakes are better than those we take at sea, or in the rivers, particularly the white fish, which, for goodness and nice eating, are far beyond all the other species. The savages that live upon the sides of those little fresh-water seas, prefer the broth of fish, to meat-broth, when they are indisposed. This choice they ground upon experience; whereas the French, on the other hand, find that venison broth is at once more substantial and restorative.

The rivers of Canada are replenished with an infinity of other fishes, that are not known in Europe. The fish caught in the north country rivers are different from those of the south; and those taken in the Long river, which disembogues into the river of Mississipi, savour so rank of mud and clay, that it is impossible to eat of them; abating for a sort of little trouts that the savages take in the adjacent lakes, which make a tolerable mess.

The rivers of the Otentats and the Missouris produce such odd shaped fishes that it is impossible to describe them without they were drawn upon paper. These fishes taste but forrily, and yet the savages love it mightily, which I take to proceed from their knowing no better.

The Trees and Fruits of the South Countries of Canada.

Beech trees, }
Red oak, } such as we have in Europe.
Bitter cherry-trees.
Ash-trees.
Elms, }
Linden-trees, } such as we have in Europe.
Nut-trees of two sorts.
Chefnut-trees.

Plum-trees.
Cherry-trees.
Hazel-trees, such as we have in Europe.
Vines.
A sort of citrons.
Water melons.
Sweet citruls.
Wild gooseberries.

Apple-trees.

Apple-trees.
Pear-trees.

Pine-apples.
Tobacco, such as our Spanish tobacco.

The Trees and Fruits of the North Countries of Canada.

White oak.
Red oak.
Birch-trees.
Bitter cherry-trees.
Mapple-trees.
Pine-trees.
Epinettes.
Fir-trees of three sorts.
Perusses.

Cedar-trees.
Aspin-trees.
White wood.
Alder-trees.
Maiden-hair.
Strawberries.
Raspberries.
Gooseberries.
Bluets.

A Description of the above-mentioned Trees and Fruits.

YOU must remark, that all the wood of Canada is good of its kind. The trees that stand exposed to the north winds are apt to be influenced by the frost, as it appears from the chops and chinks that it occasions.

The bitter cherry-tree has a hard and whitish wood with a grey bark. Some of them are as tall as the loftiest oaks, and as big as a hoghead. This tree grows straight; it has an oval leaf, and is made use of in beams, rafters, and other carpenter's work.

The mapple-tree is much of the same height and bulk; but it has a brown bark, and the wood is reddish. It bears no resemblance to that sort we have in Europe. It yields a sap, which has a much pleasanter taste than the best lemonade or cherry-water, and makes the wholesomest drink in the world. This liquor is drawn by cutting the tree two inches deep in the wood, the cut being run sloping to the length of ten or twelve inches; at the lower end of this gash, a knife is thrust into the tree slopingly, so that the water running along the cut or gash, as through a gutter, and falling upon the knife that lies across the channel, runs out upon the knife, which has vessels placed underneath to receive it. Some trees will yield five or six bottles of this water a day; and some inhabitants of Canada might draw twenty hogheads of it in one day, if they would thus cut and notch all the mapples of their respective plantations. The gash does no harm to the tree. Of this sap they make sugar and syrup, which is so valuable, that there cannot be a better remedy for fortifying the stomach. It is but few of the inhabitants that have the patience to make mapple-water; for as common and usual things are always slighted, so there is scarce anybody but children that give themselves the trouble of gashing those trees. To conclude, the north country mapples have more sap than those of the south countries; but at the same time the sap is not so sweet.

There are two sorts of nut-trees in this country. The one bears round, and the other long, nuts; but neither of them is good for any thing, no more than the wild chesnuts that grow in the Ilinese country.

The apples that grow upon some of their apple-trees eat well when they are coddled, but they are good for nothing when they are raw. Upon the Mississipi, indeed, there is a sort of apples that have a taste not unlike that of some European apples: the pears are good, but very scarce.

The

The cherries are small, and extremely red ; and though their taste is not good, yet the roe-bucks like them so well, that in the summer-time they scarce ever miss to lie under the cherry-trees all night long, especially if it blows hard.

This country affords three sorts of excellent plums, which bear no resemblance to ours either in figure or colour. Some are long and small, some are round and thick, and some very little.

The vines twine round the trees to the very top ; and the branches of those trees are so covered with grapes, that one would take the grape to be the fruit of the tree. In some countries of North America the grape is little, but very well tasted ; but towards the Missisipi it is long and thick, and so is the cluster. There has been some wine pressed from the grapes of that country, which, after long standing, became as sweet as canary, and as black as ink.

The citrons of North America are so called only because their form resembles that of our citron. Instead of a rind, they have only a single skin. They grow upon a plant that rises three feet high, and does not bear above three or four at a time. This fruit is as wholesome as its root is dangerous ; for the one is very healthy, and the juice of the other is a mortal subtle poison. While I staid at Fort Frontenac, in the year 1684, I saw an Iroquese woman take down this fatal potion, with a design to follow her deceased husband ; after she had taken leave of her friends, and sung the death-song, with the formalities that are usual among these blind wretches. The poison quickly worked the desired effect ; for this widow, who in Europe would be justly looked upon as a miracle of constancy and fidelity, had no sooner swallowed the murdering juice, then she fell into two or three shivering fits, and so expired.

The water-melons, called by the Spaniards Algiers melons, are round and thick like a ball ; some are red, and some white ; and the kernels, which are very large, are sometimes black, sometimes red ; as for their taste it is exactly the same with that of the Spanish or Portuguese melons.

The citruls of this country are sweet, and of a different nature from those of Europe ; and I am informed, that the American citruls will not grow in Europe. They are as big as our melons, and their pulp is as yellow as saffron. Commonly they are baked in ovens, but the better way is to roast them under the embers as the savages do. Their taste is much the same with that of the marmelade of apples, only they are sweeter. One may eat as much of them as he pleases, without fearing any disorder from them.

The wild gooseberries are good for nothing but for comfits ; but that sort of comfits are seldom made, for sugar is too dear in Canada to be employed for such uses.

A Description of the Trees and Fruits of the Northern Countries.

THE Canada birch-trees are much different from those we have in some provinces of France ; both for bulk and quality. The savages make canoes of their bark, some of which is red, and some white ; but both are equally proper for that use. That which has the fewest veins and chaps is the best ; but the red bark makes the finest show. There are some little baskets made of the young birches, that are much esteemed in France ; and books may be made of them, the leaves of which will be as fine as paper. This I can speak by experience, for I have frequently made use of them for want of paper, in writing the journal of my voyages ; nay, I remember I have seen, in a certain library in France, a manuscript of the gospel of St. Matthew, written in Greek upon this sort of bark ; and which is yet more surprising, I was then told, that it had been

been written above a thousand years ; and at the same time I dare swear, that it was the genuine birch-bark of New France, which in all appearance was not then discovered.

The pine-trees are very tall, strait, and thick ; and are made use of for masts, which the King's pinks do oftentimes transport to France. It is said, that some of these trees are big enough to serve for a mast of a first-rate ship.

The Epinette is a sort of a pine, with a sharper and thicker leaf. It is made use of in carpenters work, and the matter which drains from it, smells as sweet as incense.

There are three sorts of firs in this country, which are sawed into deals by certain mills, that the Quebec merchants have caused to be built in some places.

The Perusse is the prosperest of all green woods for the building of ships, upon the consideration that it is compacter and has closer pores, so that it does not soak or drink in the moisture as much as others.

Here are two sorts of cedar, namely, the white and the red ; but one must view them narrowly before he can distinguish them, by reason that both of them have much the same sort of bark. These trees are low, bushy, and full of branches and little leaves, resembling the tag of a lace. The wood of this tree is almost as light as cork ; and the savages make use of it in the wreaths and ribs of their canoes. The red sort looks admirably well, and may be made into household goods, which will retain an agreeable smell for ever.

The asps are little shrubs which grow upon the sides of pools or rivers ; and in a word, in moist and marshy countries. This wood is the common food of the beavers, who, in imitation of the ants, take care to make a collection of it round their huts in the autumn, which serves them for sustenance when the ice imprisons them in winter.

The white wood is a middling sort of a tree, that is neither too big nor too little. It is almost as light as cedar and as easily worked upon. The inhabitants of Canada make little canoes of it, for fishing and crossing the rivers.

Maidenhair is as common in the forests of Canada, as fern is in those of France, and is esteemed beyond that of other countries ; insomuch, that the inhabitants of Quebec prepare great quantities of its syrup, which they send to Paris, Nants, Rouan, and several other cities in France.

Strawberries and raspberries are wonderfully plentiful in Canada, and taste extremely well. We meet likewise with some white gooseberries in this country ; but they serve for no use, unless it be to make a sort of vinegar of them, that is very strong.

The bluets are certain little berries not unlike small cherries, only they are black, and perfectly round. The plant upon which they grow is as big as a raspberry-bush. These berries serve for several uses, after they are dried in the sun, or in an oven ; for then they make confits of them, or put them into pies, or infuse them in brandy. The north country savages make a crop of them in the summer, which affords them very seasonable relief, especially when their hunting comes short.

A General View of the Commerce of Canada.

I COME now to give a brief and general account of the commerce of Canada, which I have already touched upon in my letters. The Normans were the first that set up this trade, and usually they set out from Havre de Grace or Dieppe ; but the Rochellers have now worked them out of it, for as much as the Rochel ships furnish the inhabitants of the continent with the necessary commodities. There are likewise some ships sent to Canada from Bourdeaux and Bayonne, with wines, brandy, tobacco, and iron.

The ships bound from France to that country pay no custom for their cargo, whether

in clearing in France, or in their entries at Quebec; abating for the Brazil tobacco which pays five sols a pound; that is to say, a roll of four hundred pound weight pays a hundred livres by way of entry, to the office of the farmers general.

Most of the ships go laden to Canada, and return light or empty. Some indeed bring home pease when they are good cheap in the colony, and others take in a cargo of plants and boards: others again go to the island of Cape Breton, and there take in a cargo of pit-coal, which they carry to the islands of Martinico or Gaudaloupe, where the refining of sugars occasions a great consumption of coals. But those ships which either belong, or are recommended to the topping merchants of the colony, are freighted with skins, which turn to a great account. I have seen some ships unload at Quebec, and then steer to Placentia, to take in cod-fish, which they purchased with ready money; but generally speaking, there is more lost than got by that way of trading. The merchant that has carried on the greatest trade in Canada is the Sieur Samuel Bernon of Rochel, who has great warehouses at Quebec, from which the inhabitants of the other towns are supplied with such commodities as they want. It is true, there are some merchants at Quebec who are indifferently rich, and fit out ships upon their own bottom, that ply to and again between France and Canada; and these merchants have their correspondents at Rochel, who send out and take in every year the cargoes of their ships.

There is no difference between the pirates that scour the seas and the Canada merchants, unless it be this, that the former sometimes enrich themselves all of a sudden by a good prize; and that the latter cannot make their fortune without trading for five or six years, and that without running the hazard of their lives. I have known twenty little pedlars that had not above a thousand crowns stock when I arrived at Quebec, in the year 1683, and when I left that place had got to the tune of twelve thousand crowns. It is an unquestioned truth, that they get fifty per cent. upon all the goods they deal in, whether they buy them up upon the arrival of the ships at Quebec, or have them from France, by way of commission; but over and above that, there are some little gaudy trinkets, such as ribbands, laces, embroideries, tobacco-boxes, watches, and an infinity of other baubles of iron-ware, upon which they get a hundred and fifty per cent. all costs clear.

In this country a hoghead of Bourdeaux wine, which contains two hundred and fifty bottles, is worth about forty French livres, in time of peace, and sixty in time of war. A hoghead of Nants or Bayonne brandy, will fetch eighty or a hundred livres. In the taverns a bottle of wine costs six French sous, and a bottle of brandy is sold for twenty. As for dry commodities, their price rises and falls upon occasion. Brazil tobacco is worth forty sous a pound by way of retail, and thirty-five by wholesale. Sugar will fetch at least twenty sous a pound, and sometimes twenty-five or thirty.

The earliest ships that come from France, set out commonly in the latter end of April, or the beginning of May; but to my mind, they might shorten their voyage by one half, if they put to sea about the middle of March, and then swept along the north coast of the Azores islands; for in those seas the south and south-east winds commonly blow from the beginning of April to the end of May. I have mentioned this several times to the most expert pilots; but they still put me off with the plea, that they dare not steer that course for fear of some rocks: and yet these rocks are not to be met with but in their charts. I have read some descriptions of the ports, roads, and coasts of these islands, and of the adjacent seas, done by the Portuguese, which make no mention of the shelves that are chalked down in all our charts: on the contrary, they affirm that the coast of these islands is altogether clear, and that for twenty leagues off into the main these imaginary rocks were never met with.

As

As soon as the French ships arrive at Quebec, the merchants of that city, who have their factors in the other towns, load their barks with goods in order to transport them to these other towns. Such merchants as act for themselves at Trois Rivières, or Monreal, they come down in person to Quebec to market for themselves, and then put their effects on board of barks, to be conveyed home. If they pay for their goods in skins, they buy cheaper than if they made their payments in money or letters of exchange; by reason that the seller gets considerably by the skins when he returns to France. Now, you must take notice, that all these skins are bought up from the inhabitants, or from the savages, upon which the merchants are considerable gainers. To give you an instance of this matter; a person that lives in the neighbourhood of Quebec carries a dozen of martin's skins, five or six fox's skins, and as many skins of wild cats, to a merchant's house, in order to sell them for woollen cloth, linen, arms, ammunition, &c. In the truck of these skins the merchant draws a double profit, one upon the score of his paying no more for the skins than one-half of what he afterwards sells them for in the lump to the factors, for the Rochel ships; and the other by the exorbitant rate he puts upon the goods that the poor planter takes in exchange for his skins. If this be duly weighed, we will not think it strange, that these merchants have a more beneficial trade than a great many other tradesmen in the world. In my seventh and eight letters I related the particulars of the commerce of this country, especially that which the inhabitants carry on with the savages, who supply them with the skins of beavers and other animals. So that now it remains only to give you an inventory of the goods that are proper for the savages, and of the skins, which they give in exchange, together with their neat prices.

Short and light fuses.	Brazil tobacco.
Powder.	Coarse white thread for nets.
Ball and cut lead, or small shot.	Sewing thread of several colours.
Axes, both great and small.	Pack-thread.
Knives with their sheaths.	Vermillion.
Sword-blades to make darts of.	Needles, both large and small.
Kettles of all sizes.	Venice beads.
Shoemaker's awls.	Some iron heads for arrows, but few of them.
Fish-hooks of all sizes.	A small quantity of soap.
Flint stones.	A few sabres or cutlasses.
Caps of blue serge.	Brandy goes off incomparably well.
Shirts made of the common Britany linen.	
Woolsted stockings short and coarse.	

The Names of the Skins given in Exchange with their Rates.

	LIVRES	SOUS
THE skins of winter beavers, alias Muscovy beavers, are worth per pound, in the farmer-general's warehouse, - - -	4	10
The skins of fat beavers, the hair of which falls off while the savages make use of them, per pound, - - -	5	0
Of beavers taken in autumn, per pound, - - -	3	10
Of dry or common beavers, per pound, - - -	3	0
Of summer beavers, per pound, - - -	3	0

The skin of a white beaver is not to be valued no more than that of a fox that is quite black,

				LIVRES.	SOUS.
The skins of silver-coloured foxes a-piece,	-	-	-	4	0
Of common foxes in good order,	-	-	-	2	0
Of the common martins,	-	-	-	1	0
Of the prettiest sort of martins,	-	-	-	4	0
Of red and smooth otters,	-	-	-	2	0
Of the winter and brown otters, or more,	-	-	-	4	10
Of the finest black bears,	-	-	-	7	0
The skins of elks, before they are dressed, are worth per pound, about	-	-	-	0	12
The skins of stags are worth per pound, about	-	-	-	0	8
The wild cats, or enfans de diable, a-piece,	-	-	-	1	15
Sea-wolves, a-piece or more,	-	-	-	1	15
Pole-cats and weasels,	-	-	-	0	10
Musk rats,	-	-	-	0	6
Their testicles,	-	-	-	0	5
Wolves,	-	-	-	2	10
The white elk skins, <i>i. e.</i> those dressed by the savages, a-piece,	-	-	-	8	or m.
A dressed hart's skin is worth	-	-	-	5	or m.
A caribous,	-	-	-	6	
A roe-buck's,	-	-	-	3	

To conclude, you must take notice, that these skins are upon some particular occasions dearer than I rate them, but the difference is but very small, whether under or over.

An Account of the Government of Canada in general.

IN Canada, the politic, civil, ecclesiastical and military governments, are all in a manner one thing, in regard that the wisest governors have subjected their authority to that of the ecclesiastics; and such governors as would not embark in that interest, have found their post so uneasy that they have been recalled with disgrace. I could instance in several, who for not adhering to the sentiments of the bishop and the Jesuits, and for refusing to lodge their power in the hands of these infallible gentlemen, have been turned out, and treated at court like hot-headed incendiaries. M. de Frontenac was one of this number who made such an unhappy exit; for he fell out with M. Duchesneau, intendant of that country, who finding himself protected by the clergy, industriously insulted that illustrious general, and the general was forced to give way, under the weight of an ecclesiastical league, by reason of the springs they set at work against him, in opposition to all the principles of honour and conscience.

The governor-generals that mean to neglect no opportunity of advancing or enriching themselves, do commonly hear two masses a-day, and are obliged to confess once in four-and-twenty hours. He has always clergymen hanging about him wherever he goes, and indeed, properly speaking, they are his counsellors. When a governor is thus backed by the clergy, the intendants, the under-governors, and the sovereign council, dare not censure his conduct, let it be never so faulty; for the protection of the ecclesiastics shelters him from all the charges that can be laid against him.

The governor-general of Quebec has twenty thousand crowns a-year, including the pay of his company of guards, and the particular government of the fort. Over and above

above this income, the farmers of the beaver-skins make him a present of a thousand crowns a-year; his wines, and all his other provisions imported from France, pay no freight; not to mention, that by certain ways and means he sucks as much money out of the country as all the above-mentioned articles amount to. The intendant has eighteen thousand livres a-year, but the Lord knows what he makes otherwise. I have no mind to touch there, for fear of being ranked among those detractors who speak the truth too sincerely. The bishop's incomes are so small, that if the King were not graciously pleased to add to his bishopric some other benefices in France, that reverend prelate would be reduced to as short commons as a hundred of his character are in the kingdom of Naples. The major of Quebec has six hundred crowns a year; the governor of Trois Rivières has a thousand, and the governor of Montreal is allowed two thousand. A captain has a hundred and twenty livres a-month, a lieutenant ninety livres; a reformed lieutenant is allowed but forty, and a common soldier's pay is six sous a-day, of the current money of the country.

The people repose a great deal of confidence in the clergy in this country as well as elsewhere. Here the outward shew of devotion is strictly observed, for the people dare not absent from the great masses and sermons without a lawful excuse. But after all, it is at the time of divine service that the married women and maids give their humours a full loose, as being assured that their husbands and mothers are busy at church. The priests call people by their names in the pulpit; they prohibit under the pain of excommunication, the reading of romances and plays, as well as the use of masks, and playing at ombre or lansquenet. The Jesuits and the Recollets agree as ill as the Molinists and the Jansenists. The former pretend that the latter have no right to confess. Do but look back to my eighth letter, and there you will see some instances of the indiscreet zeal of the ecclesiastics.

The governor-general has the disposal of all military posts. He bestows companies, lieutenancies, and under-lieutenancies, upon who he pleases, with His Majesty's gracious approbation; but he is not allowed to dispose of particular governorships, or of the place of a lord lieutenant of a province, or of the major of any town. He is empowered to grant to the gentry and the other inhabitants, lands and settlements all over Canada; but these grants must be given in concert with the intendant. He is likewise authorized to give five-and-twenty licences a-year to whom he thinks fit, for trading with the savage nations of that vast continent. He is invested with the power of suspending the execution of sentences against criminals; and, by virtue of this privilege, can easily procure them a pardon if he has a mind to favour them. But he cannot dispose of the King's money without the consent of the intendant, who is the only man that can call it out of the hands of the treasurer of the navy.

The governor-general cannot be without the service of the Jesuits, in making treaties with the governors of New England and New York, as well as with the Iroquese. I am at a loss to know whether these good fathers are employed in such services upon the score of their judicious counsels, and their being perfectly well acquainted with the country and the King's true interests; or upon the consideration of their speaking to a miracle, the languages of so many different nations, whose interests are quite opposite; or out of a sense of that condescension and submission that is due to these worthy companions of our Saviour.

The members of the supreme council of Canada, cannot sell or convey their places to their heirs, or to any body else, without the King's approbation; though at the same time their places may be worth not so much as the place of a lieutenant to a company of foot. When they have nice points under their consideration, they usually consult the

priests or Jesuits : and if any cause comes before them, in which these good fathers are interested, they are sure not to be cast, unless it be so very black that the cunningest lawyer cannot give it a plausible turn. I have been informed by several persons, that the Jesuits drive a great trade in European commodities, and Canada skins ; but I can scarce believe it, or at least, if it be so, they must have correspondents and factors that are as close and cunning as themselves ; which can never be.

The gentlemen of that country are obliged to be very cautious in carrying even with the ecclesiastics, in respect to the good or harm that the good fathers can indirectly throw in their way. The bishop and the Jesuits have such an influence over the governors-general, as is sufficient to procure places to the children of the noblemen or gentlemen that are devoted to their service, or to obtain the licences that I spoke of in my eighth letter. It is likewise in their power to serve the daughters of such gentlemen, by finding them agreeable and rich husbands. The meanest curates must be managed cautiously, for they can either serve or disserve the gentlemen in whose seignories they are no more than missionaries, there being no fixed cures in Canada, which indeed is a grievance that ought to be redressed. The officers of the army are likewise obliged to keep up a good correspondence with the ecclesiastics, for without that it is impossible for them to keep their ground. They must not only take care that their own conduct be regular, but likewise look after that of the soldiers, by preventing the disorders they might commit in their quarters.

Commonly the troops are quartered upon the inhabitants of the cotes, or seignories of Canada, from October to May. The master of the house furnishes his military guest only with utensils, and employs him all the while at the rate of ten sous a day, besides his victuals, in the cutting of wood, grubbing up of grounds, rooting out stumps, or the threshing of corn in a barn. The captain gets likewise by their work, for to make them discount the half of their pay to him, he orders them to come thrice a week to exercise their arms at his quarters. Now their habitations being distant four or five arpents from one another, and one cote or seignory being two or three leagues in front, the soldiers choose rather to give the captain a spill, than to walk so far in the snow and the dirt : and the captain takes it very conscientiously, upon the plea that *Volenti non fit injuria*. As for such soldiers as are good tradesmen, he is sure of putting their whole pay in his pocket, by virtue of a licence that he gives them to work in the towns, or any where else. In fine, most of the officers marry in this country, but God knows what sort of marriages they make, in taking girls with a dowry, consisting of eleven crowns, a cock, a hen, an ox, a cow, and sometimes a calf. I knew several young women, whose lovers, after denying the fact, and proving before the judges the scandalous conversation of their mistresses, were forced, upon the persuasion of the ecclesiastics, to swallow the bitter pill, and take the very same girls in marriage. Some officers indeed marry well, but there are few such. The occasion of their marrying so readily in that country proceeds from the difficulty of conversing with the soft sex. After a man has made four visits to a young woman, he is obliged to unfold his mind to her father and mother ; he must then either talk of marriage, or break off all correspondence ; or if he does not, both he and she lies under a scandal. In this country a man cannot visit another man's wife, without being censured as if her husband was a cuckold. In fine, a man can meet with no diversion here, but that of reading, or eating, or drinking. Though after all, there are some intrigues carried on but with the same caution as in Spain, where the virtue of the ladies consists only in disguising the matter handsomely.

Now, that I am upon the subject of marriage, I cannot forbear to acquaint you with a comical adventure that happened to a young captain, who was pressed to marry against his will, because all his companions and acquaintances were already buckled. This young officer having made some visits to a counsellor's daughter, he was desired to tell what errand he came upon; and M. de Frontenac himself being related to the young lady, who is certainly one of the most accomplished ladies of this age, used his utmost efforts to engage the captain to marry her. The captain being equally well pleased with a free access to the governor's table, and the company of the lady whom he met there not unfrequently; the captain, I say, being equally fond of these two advantages, endeavoured to ward off the design, by asking some time to consider of it. Accordingly, two months were granted him; and after that time was expired he had still a mind to let out his traces, and so desired two months more, which were granted him by the bishop's intercession. When the last of these two was at an end, the cavalier began to be apprehensive that he was in danger of losing both his good cheer and the agreeable company of the lady. However he was obliged to be present at a treat that Mr. Nelson (the English gentleman I spoke of in my twenty-third letter) gave to the two lovers, as well as the governor, the intendant, the bishop, and some other persons of note: and this generous English gentleman having a kindness for the young lady's father, and her brethren, upon the score of their trading with one another, made an offer of a thousand crowns to be paid on the wedding-day, which, added to a thousand that the bishop offered, and a thousand more which she had of her own, besides seven or eight thousand that M. de Frontenac offered in licences, not to mention the certain prospect of preferment; all these items, I say, made the marriage very advantageous to the captain. After they had done eating, he was pressed to sign the contract, but made answer, that he had drank some bumpers of heady wine, and his head was not clear enough for weighing the conditions of the contract; so that they were forced to put off the matter till the next day. Upon this delay he kept his chamber, till M. de Frontenac, at whose table he used to eat, sent for him, in order to know his mind immediately. Then there was no room left for shuffling; there was a necessity of giving a positive answer to the governor, who spoke to him in plain and precise terms, and at the same time reminded him of the favour they had shewn him, in allowing him so much time to consider of the proposed marriage. The young officer replied very fairly, That any man that was capable of marrying after four month's deliberation, was a fool in buckling too. "I now see," says he, "what I am; the eager desire I had of going to church with Mademoiselle D— has now convinced me of my folly: if you have a respect for the lady, pray do not suffer her to marry a young spark that is so apt to take up with extravagant and foolish things. As for my own part, Sir, I protest sincerely, that the little reason and free judgment that is left me, will serve to comfort me upon the loss of her, and to teach me to repent of having desired to make her as unhappy as myself." This discourse surprised the bishop, the governor, the intendant, and in general all the other married officers, who desired nothing more than that he should be caught in the noose as well as they; so true it is, that *Solamen miseris socios habuisse doloris*. As they were far from expecting any such retraction, so the poor reformed captain suffered for it; for some time after M. de Frontenac did him a piece of injustice, in bestowing a vacant company over his head, upon Madam de Pouchartrain's nephew, notwithstanding that the court had sent orders on his behalf; and this obliged him to go for France along with me, in the year 1692.

To

To resume the thread of my discourse, you must know, that the Canadese or Creoles, are a robust brawny well-made people; they are strong, vigorous, active, brave and indefatigable; in a word, they want nothing but the knowledge of polite letters. They are presumptuous, and very full of themselves; they value themselves beyond all the nations of the earth, and, which is to be regretted, they have not that veneration for their parents that is due. Their complexion is wonderfully pretty. The women are generally handsome; few of them are brown, but many of them are at once wise and lazy. They love luxury to the last degree, and strive to out-do one another in catching husbands in the trap.

There is an infinity of disorders in Canada that want to be reformed. The first step of a true reformation must be that of hindering the ecclesiastics to visit the inhabitants so often, and to pry with such impertinence into the minutest affairs of the family; for such practices are frequently contrary to the good of the society, and that for reasons that you are not ignorant of. The next thing to be done, is to prohibit the officers to stop the soldiers pay, and to enjoin them to discipline their men every holy-day, and every Sunday. In the third place, the commodities ought to be rated at a reasonable price, so that the merchant may have his profit, without exacting upon the inhabitants and the savages. A fourth article of reformation, would consist in prohibiting the exporting from France to Canada, of brocados, gold and silver galloons or ribbands, and rich laces. In a fifth place, the governor-general ought not to sell licences for trading with the savages of the great lakes. Sixthly, there ought to be fixed courts. In the seventh place, they want to have their militia modelled and disciplined, that, upon occasion, they may be as serviceable as the regular troops. For an eighth article, the setting up manufactories for linen, stuffs, &c. would be very useful. But the most important alteration would consist in keeping the governors, the intendants, the supreme council, the bishops and the Jesuits, from splitting into factions, and making clubs one against another; for the consequences of such divisions cannot but thwart His Majesty's service, and the peace of the public. Were this but happily effected, that country would be as rich again as it is now.

I wonder, that instead of banishing the Protestants out of France, who in removing to the countries of our enemies, have done so much damage to the kingdom, by carrying their money along with them, and setting up manufactories in those countries; I wonder, I say, that the court did not think it more proper to transport them to Canada. I am convinced, that if they had received positive assurances of enjoying a liberty of conscience, a great many of them would have made no scruple to go thither. Some have replied upon this head, that the remedy had been worse than the disease; in regard that some time or other they would not have failed to expel the catholics by the assistance of the English: but I represented to them, that the Greeks and Armenians, who are subject to the grand seignior, and at the same time are of a nation and religion that is different from that of the Turks; I represented, I say, that these dissenting subjects did scarce ever implore the aid of foreign powers, in order to rebel and shake off the yoke. In fine, we have more reason to believe, that if the Huguenots had been transported to Canada, they had never departed from the fealty they owed to their natural sovereign. But let that be as it will, I do but speak as that king of Arragon did, who boasted, that if God had deigned to consult him, he could have given him seasonable advice with reference to the symmetry and the courses of the stars; for, in like manner I do affirm, that if the council of state had followed my scheme, in the space of thirty or forty years, New France would have become a finer and more flourishing kingdom than several others in Europe.

A Discourse

A Discourse of the Interest of the French, and of the English, in North America.

SINCE New France and New England subsist only upon the cod fishery and the fur trade, it is the interest of these two colonies to enlarge the number of the ships employed in the fishery, and to encourage the savages to hunt and shoot beavers, by furnishing them with what arms and ammunition they have occasion for. It is well known, that there is a great consumption of cod-fish in the southern countries of Europe, and that few commodities meet with a better and readier market, especially if they are good and well cured.

Those who alledge that the destruction of the Iroquese would promote the interest of the colonies of New France, are strangers to the true interest of that country; for if that were once accomplished, the savages, who are now the French allies, would turn their greatest enemies, as being then rid of their other fears. They would not fail to call in the English, by reason that their commodities are at once cheaper and more esteemed than ours; and by that means the whole commerce of that wide country would be wrested out of our hands.

I conclude therefore, that it is the interest of the French to weaken the Iroquese, but not to see them entirely defeated. I own, that at this day they are too strong, insomuch that they cut the throats of the savages, our allies, every day. They have nothing less in view than to cut off all the nations they know, let their situation be never so remote from their country. It is our business to reduce them to one half of the power they are now possessed of, if it were possible; but we do not go the right way to work. Above these thirty years their ancient counsellors have still remonstrated to the warriors of the five nations, that it was expedient to cut off all the savage nations of Canada, in order to ruin the commerce of the French, and after that to dislodge them of the continent. With this view they have carried the war above four or five hundred leagues off their country, after the destroying of several different nations in several places, as I shewed you before.

It would be no difficult matter for the French to draw the Iroquese over to their side, to keep them from plaguing the French allies, and at the same time to engross all the commerce with the five Iroquese nations, that is now in the hands of the English in New York. This might be easily put in execution, provided the King would allow ten thousand crowns a-year for that end. The method of effecting it is this: in the first place, the barks that were formerly made use of about Fort Frontenac, must be rebuilt, in order to convey to the rivers of the Tsonontouans and the Onontagues, such commodities as are proper for them, and to sell them for the prime cost in France. Now this would put the King to the charge of about ten thousand crowns for freight; and I am persuaded, that upon that foot the Iroquese would not be such fools as to carry so much as one beaver to the English colonies, and that for four reasons. The first is, that whereas they must transport them sixty or eighty leagues upon their backs to New York, they have not above seven or eight leagues travelling from their own villages to the banks of the lake of Frontenac. For a second reason, it is manifest that the English cannot possibly let them have their commodities so cheap, without being considerable losers, and that thereupon every merchant would drop that sort of trade. The third is drawn from the difficulty of having subsistence upon the road between the Iroquese villages and New York; for the Iroquese go thither in great bodies, for fear of being surprized; and I acquainted you before several times, that there is no venison in that side of the country. The fourth reason is this, in marching

so far from their villages, they expose their wives, their children, and their superannuated men, for a prey to their enemies, who upon that occasion may either kill them or carry them off; and of this we have two instances already. Over and above the cheapness of our commodities, it would likewise be requisite that we made them presents every year, and at the same time entreated them not to disturb the repose of our confederate savages, who are such fools as to wage war one with another, instead of entering into a joint league in opposition to the Iroquese, the most redoubted of their enemies, and those whom they have most reason to fear. In a word, if we would manage our affairs with the Iroquese to the best advantage, we ought to put in execution that project that I mentioned in my twenty-third letter.

To alledge that these barbarians have a dependance upon the English is a foolish plea; for they are so far from owning any dependance, that when they go to New York to truck their skins, they have the confidence to put rates upon the goods they have occasion for, when the merchants offer to raise their price. I have intimated already several times that their respect for the English is tacked to the occasion they have to make use of them; that this is the only motive which induces them to treat the English as their brethren, and their friends; and that if the French would sell them the necessaries of life, as well as arms and ammunition, at easier rates, they would not make many journies to the English colonies. This is a consideration that ought to be chiefly in our view; for if we minded it to the purpose, they would be cautious of insulting our savage confederates, as well as ourselves. The governors-general of Canada would do well to employ the sensible men of the country that are acquainted with our confederates, in pressing them to live in a good correspondence with one another, without waging war among themselves; for most of the southern nations worm out one another insensibly, which affords matter of joy to the Iroquese. Now, it were an easy matter to prevent this fatal mouldering, by threatening to give them no further supplies of commodities in their villages. To this precaution, we ought to add that of endeavouring to engage two or three nations to live together; the Outaouas, for instance, with the Hurons; the Sakis with the Pouteouatamis alias Puants. If all those nations who are embarked in a confederacy with us, would but agree one with another, and put up their quarrels, they would give themselves wholly to the hunting of beavers, which would tend to the enlarging of our commerce; and besides, they would be in a condition of making one joint body, when the Iroquese offered to attack either one or the other.

It is the interest of the English to persuade these nations that the French have nothing less in view than to destroy them as soon as they meet with an opportunity; that the growing populousness of Canada is a sufficient ground of alarm, that they ought to avoid all commerce with the French, for fear of being betrayed in any way whatsoever; that to hinder the repairing of Fort Frontenac, and the rebuilding of barks for that lake, is to them a thing of the last importance, by reason that the French might in four-and-twenty hours make a descent from thence to their villages, and carry off their ancient men, their women, and their children, at a time when the warriors might be engaged in the hunting of beavers; that they would promote their own interest by waging war with the French from time to time, by ravaging the seignories and settlements in the upper part of the country, in order to oblige the inhabitants to abdicate the colony, and to discourage those who would otherwise remove out of France, and settle in Canada; and in fine, that in time of peace it would be very proper to stop the coureurs de bois at the cataracts of the Outaouas river, and to seize the arms and ammunition that they carry to the savages upon the lakes.

Farther,

Farther, if the English would pursue their measures to the best advantage, they ought to engage the Tfonontouans or the Goyoguans to go and settle upon the banks of the lake Erriè, near the mouth of the river of Condè; and at the same time they ought to build a fort there, with some long barks or brigantines: for this is the most convenient and advantageous post of all that country, and that for an infinity of reasons which I am obliged to conceal. Besides this fort, they should build another at the mouth of the River des Francois; and then it would be absolutely impossible for the coureurs de bois to reach the lakes.

They ought likewise to engage the savages of Acadia in their interest; which they may do with little charge. The planters of New England should mind this, as well as the fortifying of the ports in which they fish their cod. As for the fitting out of fleets to destroy the colony, I would not advise the English to give themselves that trouble; for supposing they were assured of success, it is but some places that can be reckoned worth the while.

To conclude, I must say the English in these colonies are too careless and lazy; the French coureurs de bois are much readier for enterprizes, and the Canadese are certainly more vigilant and more active. It behoves the inhabitants of New York to enlarge their fur trade by well concerted enterprizes; and those of New England, to render the cod fishing more beneficial to the colony, by taking such measures as many other people would, if they were as advantageously seated. I do not intend to speak of the limits of New France and New England, for they were never well adjusted; though indeed it would seem that in several treaties of peace between these two kingdoms, the boundaries were in a manner marked out in some places. Whatever is in that matter, the decision of it is too nice a point for one that cannot open his mind without pulling an old house upon his head.

A TABLE EXPLAINING SOME TERMS.

A

ASTROLABE is a mathematical instrument that can scarce be used in the ocean by reason of the waves. There are two sorts of them. The first are made use of by East-India masters, at a time when the sea is as smooth as the face of a looking-glass. This sort is serviceable in taking the height of the sun, by the means of two little pins, which are bored so as to have two dioptrick perforations, that serve to conduct the rays of light to that luminary. The latter are such as the mathematicians commonly make use of for astronomical observations, and are furnished with azimuths, almucantaræ, loxodromick tables, and the concentrick and excentrick tables of the sphere.

B

Bank of Newfoundland, or bank in general, is a rising ground in the sea, which shoots like a hat beyond the other brims. The bank of Newfoundland has thirty or forty fathom water, and is paved with cod-fish.

Basin, is a head of stagnating water, not unlike a pool or lake.

Bouteux signifies little nets belagged to the end of a stick. The fishermen make use of them to catch fish upon a sandy ground, and especially eels, upon the side of St. Laurence river.

Bouts de Quivres are nets not unlike *bouteux*, which serve for the same use.

Breaking ground signifies the weighing anchor and putting to sea.

Brigantine, a small vessel of one deck, built of light wood, which plies both with oars and sails. It is equally sharp at prow and poop, and is built for a quick sailer.

C

Calumet in general signifies a pipe, being a Norman word, derived from *chalumeau*. The savages do not understand this word, for it was introduced to Canada by the Normans when they first settled there; and has still continued in use amongst the French planters. The calumet or pipe is called

in the Iroqueſe language ganondaoe, and by the other ſavage nations poagan.

Canadeſe or *Canadans*, are the natives of Canada, ſprung from a French father and mother. In the iſlands of South America, the natives born of French parents are called Creoles.

Capa y d'eſpada, a Gaſcogne title which the people of that province gave in former times by way of irony to the members of the ſupreme council of Canada, becauſe the firſt counſellors wore neither robe nor ſword, but walked very gravely, with a cane in their hands, both in the city of Quebec, and in the hall.

Caffa tête, ſignifies a club, or a head-breaker: the ſavages call it aſſan ouſtick, ouſtick ſignifying the head, and aſſan to break.

Channel is a ſpace of pretty deep water, between two banks, or between two ſhores. Commonly the channels are incloſed by flats, and for that reaſon buoys or maſts are fixed upon them, in order to direct the pilots, who ſteer either by theſe marks, or by ſounding, for they would run the riſque of looſing their ſhips, if they did not keep exactly to the channel.

Coaſt along, ſee *Sweep*.

Compaſs of Variation. It is larger than the ordinary compaſſes, and ſerves to point out the unequal motions of the needle, which leans always to the north-eaſt in the other hemisphere, whereas it ſtill plies to the north-weſt in this, I mean on this ſide the equinoctial line. The needle touched with the loadſtone departs from the true north a certain number of degrees to the right and left; and mariners compute the degrees of its departure by the means of an alhidada, and a thread which divides the glaſs of the compaſs into two equal parts, and ſo ſhews the variation of the needle at ſunſet, that being the true proper time for making the obſervation; for at ſun-riſing, and at noon, one may be deceived by refractions, &c.

Coueurs de Bois, i. e. Foreſt Rangers, are French or Canadeſe, ſo called from employing their whole life in the rough exerciſe of transporting merchandize goods to the lakes of Canada, and to all the other countries of that continent, in order to trade with the ſavages; and in regard that they run in canoes a thouſand leagues up the country, notwithſtanding the danger of the ſea and enemies, I take it, they ſhould rather be called coueurs de riſques, than coueurs de bois.

E

Eddy, or boiling water, is little watery mountains that riſe at the foot of water-falls or cataracts, juſt as we ſee the water plays in the ciſterns of water-works.

Edge of a bank, is the ſhelving part of it that runs ſteep like a wall.

F

Fathom, among the French is the meaſure of ſix feet.

Feaſt of Union, a term uſed by the Iroqueſe to ſignify the renewing of the alliance between the five Iroqueſe nations.

Flats, are a ridge of rocks running under water from one ſtation to another, and riſing within five or ſix foot at leaſt of the ſurface of that element, ſo as to hinder ſhips, barks, &c. to float upon them.

Freight, ſignifies in this book the cargo, though in other caſes it ſignifies likewise the hire or fare.

Furl the Sails, ſignifies the drawing them up to a heap towards the topmaſt, not long ways as we do the curtains of a bed, but from below upwards. This is done by two ropes, that draw up the ſail as a ſtring does a purſe.

H

Head Bars are two round pieces of wood, reaching on each ſide from one end of a canoe to the other. Theſe are the ſupporters of the canoe, for the ribs and ſpars are made faſt upon them.

K

Keel of a ſhip, is a long piece of the ſtrongeſt wood, or at leaſt ſeveral pieces joined together, to bear the great weight of all the other timber.

Kitchi Okima, is the general name for the governor-general of Canada among all the ſavages, whoſe languages approach to that of the Algonkins. Kitchi ſignifies great, and Okima, captain. The Iroqueſe and Hurons call the governor-general Onnontio.

L

Latitude. Every body knows that it imports the elevation of the pole, or the diſtance from a fixed point of the equator.

Land-carriage ſignifies the transporting of canoes by land from the foot to the head of a cataract, or from one river to another.

Light Ships are ſuch as are empty without any cargo.

P

Poop is the ſtern or after-part of the ſhip, in which the rudder is fixed.

Precipice of a bank, ſee *Edge*.

Prow is the head or fore-part of a ſhip, which cuts the water firſt.

Q

Quarter. Though the word quarter in a maritime ſenſe is not well explained, I put the meaning of it to be this. The north quarter comprehends the ſpace that lies between north-weſt and north-eaſt. The eaſt quarter runs from north-eaſt to ſouth-eaſt. The ſouth quarter comprehends that part of the heavens that falls between ſouth-eaſt and ſouth-weſt: and the weſt quarter extends from ſouth-weſt to north-weſt.

Refitting

R

Refitting of a ship, signifies the repairing and dressing of it, and putting it into a condition to sail, by putting in new planks, caulking the seams, &c.

Ribs of a Canoe, are much like those of a pink, only there is this difference, that they line the canoe only on the inside from one head-bar to another, upon which they are incased. They have the thickness of three crowns, and the breadth of four inches.

Ruche, an instrument for fishing resembling a beehive.

S

Scurvy, is a corruption of the mass of blood. There are two sorts of it; one called the land scurvy, which loads a man with infirmities that gradually bring him to his grave; the other is the sea scurvy, which infallibly kills a man in eight days unless he gets ashore.

Shieve, i. e. row the wrong way, in order to assist the steerfman to steer the boat, and to keep the boat in the channel.

Shoot. To shoot a water-fall or cataract, implies the running a boat down these dangerous precipices, following the stream of the water, and steering very nicely.

Sledges are a conveniency for travelling, built in an oblong quadrangular form, upon two pieces of wood, which are four feet long, and six feet broad; upon the wood there are several pieces of cloth or hide nailed to keep the wind off. These two pieces of wood are very hard, and well smoothed, that they may slide the better on snow or ice. Such are the horse-sledges. But those drawn by dogs are open, and made of two little pieces of hard, smooth, and shining wood, which are half an inch thick, five feet long, and a foot and a half broad.

Spars, are little pieces of cedar wood, of the thickness of a crown, and the breadth of three inches, and as long as they can be made. They do the same service to a canoe, that a good lining does to a coat.

Stand in for Land, signifies to sail directly towards it.

Steer a ship, imports the managing of a ship by the means of a rudder, (as we do a horse with a bridle) when there is wind enough to work her; but if there be no wind, a ship is more unmoveable than a gouty person in an elbow-chair.

Stem a tide or the current of a river, i. e. to sail against the current, or to steer for the place from whence the tides or currents come.

Strike, to strike the sails or flag signifies the lowering of them, whether it be to submit to an enemy, or by reason of high winds.

Sweep a coast, signifies to sail along the coast side at a reasonable distance.

T

Top-gallant-masts are two little masts set upon the two top-masts, and have two sails fitted for them.

Top-sails are two sails fitted for the two top masts, which stand directly above the two great masts.

Traverse. To traverse signifies sailing zigzag, or from side to side as a drunken man reels, when the wind is contrary, for then they are obliged to tack sometimes to the right and sometimes to the left, keeping as near to the wind as they can, in order to make what way they can, or at least to prevent their losing ground.

Tree of Peace, a symbolick metaphor for peace itself.

TRAVELS INTO NORTH AMERICA;

CONTAINING

ITS NATURAL HISTORY, AND A CIRCUMSTANTIAL ACCOUNT OF ITS
PLANTATIONS AND AGRICULTURE IN GENERAL,

WITH THE

*Civil, Ecclesiastical, and Commercial state of the Country, the Manners of the Inhabitants, and several
curious and important Remarks on various Subjects.*

BY PETER KALM,

Professor of Oeconomy in the University of *Abo* in Swedish Finland, and Member of the Swedish
Royal Academy of Sciences.

Translated into English by JOHN REINHOLD FORSTER, F. A. S.

THE PREFACE.

PROFESSOR KALM's Travels through North America, were originally written in the Swedish language, but soon after translated into German by the two Murray's, both of whom are Swedes, and one a pupil of Dr. Linnæus, from which we may conclude that this translation corresponds exactly with the original.

Baron Sten Charles Bielke, Vice-president of the Court of Justice in Finland, was the first who made a proposal to the Royal Academy of Sciences at Stockholm, to send an able man to the northern parts of Siberia and Iceland, as places which are partly under the same latitude with Sweden, and to make there such observations and collections of seeds and plants, as would improve the Swedish husbandry, gardening, manufactures, arts and sciences. Dr. Linnæus found the proposal just, but he thought that a journey through North America would be yet of a more extensive utility, than that through the before-mentioned countries; for the plants of America were then little known, and not scientifically described; and by several trials, it seemed probable that the greatest part of the North American plants would bear very well the Swedish winters; and what was more important, a great many American plants promised to be very useful in husbandry and physic.

Thus far this journey was a mere scheme; but as Captain Triewald, a man well known for his abilities in England, gave his Observations on the Cultivation of Silk in a series of Memoirs to the Royal Academy of Sciences, and mentioned therein a kind of mulberry-tree, which was discovered by Dr. Linnæus, and which bore the

* From the Second Edition, London 1772, 2 vols. 8vo.

rigours of the Swedish climate as well as a fir or pine tree ; this circumstance revived the proposal of such a journey in the year 1745. Count Tessin, a nobleman of established merit both in the political and learned world, becoming president of the Royal Academy, it was unanimously agreed upon to send Professor Kalm to North America. The expences were at first a great obstacle ; but the Royal Academy wrote to the three universities to assist them in this great and useful undertaking. Abo sent first her small contribution, Lund had nothing to spare, but Upsala made up this deficiency by a liberal contribution.

Count Piper was entreated to give a family exhibition to Mr. Kalm, which he readily promised ; but as the academy had obtained from the convocation of the university of Upsala and the magistrates of Stockholm, another exhibition of the family of Helmsfield for Mr. Kalm, Count Piper refused to grant his exhibition, as being contrary to the statutes of the university and without any precedent, that one person should enjoy two exhibitions. The present King of Sweden being then Prince Royal, successor to the throne, and chancellor of the university, wrote to the convocation, and expressed his wishes to have from the treasury of the university for so useful a purpose, about one thousand plates, or about one hundred and fifty pounds sterling. The university complied generously with the desire of her chancellor, and gave orders that the money should be paid to the Royal Academy. The board for promoting manufactures gave three hundred plates, or about forty-five pounds. Mr. Kalm spent in this journey his salary, and besides very near one hundred and thirty pounds of his own fortune ; so that at his return he found himself obliged to live upon a very small pittance. The rest of the expences the academy made up from her own fund.

We on purpose have given this detail from Mr. Kalm's long preface, to shew the reader with what public spirit this journey has been supported in a country where money is so scarce, and what a patriotic and laudable ardour for the promotion of sciences in general, and especially of natural history and husbandry, animates the universities, the public boards, and even the private persons, in this cold climate, which goes so far, that they chuse rather to spend their own private fortunes, than to give up so beneficial and useful a scheme. We have the same instance in Dr. Hasselquist, who with a sickly and consumptive constitution, went to Asia Minor, Egypt, and Palestine, and collected such great riches in new plants and animals, that Dr. Linnæus's system would never have contained so many species, had he not made use of these treasures, which the Queen of Sweden generously bought, by paying the debts of Dr. Hasselquist, who died in his attempt to promote natural history. The reverend Mr. Osbeck, in his voyage to China, made an infinite number of useful and interesting observations at the expence of his whole salary, and published them by the contributions of his parish. The reverend Mr. Toren died by the fatigues of the same voyage, and left his letters published along with Osbeck, as a monument of his fine genius, and spirit for promoting natural history. We here look upon the expences as trifling, but they are not so in Sweden, and therefore are certainly the best monuments to the honour of the nation and the great Linnæus, who in respect to natural history is the *primum mobile* of that country.

Professor Kalm having obtained leave of his Majesty to be absent from his post as professor, and having got a passport, and recommendations to the several Swedish ministers at the courts of London, Paris, Madrid, and at the Hague, in order to obtain passports for him in their respective states, set out from Upsala, the 16th of October 1747, accompanied by Lars Yungstroem, a gardener well skilled in the knowledge of plants and mechanics, and who had at the same time a good hand for drawing

drawing, whom he took into his service. He then set sail from Gothenburgh, the 11th of December, but a violent hurricane obliged the ship he was in to take shelter in the harbour of Grøemstad in Norway, from which place he made excursions to Arendal and Christianfand. He went again to sea February the 8th, 1748, and arrived at London the 17th of the same month. He staid in England till August 15th, in which interval of time he made excursions to Woodford in Essex, to Little Gaddesden in Hertfordshire, where William Ellis, a man known by his publications in husbandry, lived, but whose practical husbandry Mr. Kalm found not to be equal to the theory laid down in his writings; he likewise saw Ivinghoe in Buckinghamshire, Eton, and several other places, and all the curiosities and gardens in and about London: at last he went on board a ship, and traversed the ocean to Philadelphia in Pennsylvania, which was formerly called New Sweden, where he arrived September the 26th. The rest of that year he employed in collecting seeds of trees and plants, and sending them up to Sweden; and in several excursions in the environs of Philadelphia. The winter he passed among his countrymen at Raccoon in New Jersey. The next year, 1749, Mr. Kalm went through New Jersey and New York, along the river Hudson, to Albany, and from thence, after having crossed the lakes of St. George and Champlain, to Montreal and Quebec, he returned that very year, against winter, to Philadelphia, and sent a new cargo of seeds, plants, and curiosities to Sweden. In the year 1750, Mr. Kalm saw the western parts of Pennsylvania and the coast of New Jersey; Yungstroem staid in the former province all the summer for the collection of seeds; and Professor Kalm in the mean time passed New York and the Blue Mountains, went to Albany, then along the river Mohawk to the Iroquese nations, where he got acquainted with the Mohawks, Oneidas, Tuskaroras, Onandagas, and Kayugaws. He then viewed and navigated the great lake Ontario, and saw the celebrated fall at Niagara. In his return from his summer expedition, he crossed the Blue Mountains in a different place, and in October again reached Philadelphia.

In 1751, he went at Newcastle on board a ship for England, and after a passage, subject to many dangers in the most dreadful hurricanes, he arrived March the 27th, in the Thames, and two days after in London. He took passage for Gothenburgh May the 5th, and was the 16th of the same month at the place of his destination, and the 13th of June he again arrived at Stockholm, after having been on this useful expedition three years and eight months. He has since assumed the professorship at Aobo, where, in a small garden of his own, he cultivates many hundreds of American plants, as there is not yet a public botanical garden for the use of the university; and he with great expectation wishes to see what plants will bear the climate, and bear good and ripe seeds so far north. He published the account of his journey by intervals, for want of encouragement, and fearing the expences of publishing at once, in a country where few booksellers are found, and where the author does very often embrace the business of bookseller, in order to reimburse himself for the expences of his publication. A passage cross the Atlantic ocean is a new thing to the Swedes, who are little used to it, unless they go in the few East India ships of their country. Every thing therefore was new to Mr. Kalm, and he omitted no circumstance unobserved which are repeated in all the navigators from the earlier times down to our own age. It would be a kind of injustice to the public, to give all this at large to the reader. All that part describing England and its curiosities and husbandry we omitted. The particulars of the passage from England to Pennsylvania we abridged: no circumstance interesting to natural history or to any other part of literature has been omitted. From his arrival at Philadelphia we give the original at large, except where we omitted some trifling circumstances,

viz. the way of eating oysters, the art of making apple-dumplings, and some more of the same nature, which struck that Swedish gentleman with their novelty.

Mr. Kalm makes use of the Swedish measure; its foot is to the English foot, as 1134 to 1350. For his meteorological observations he employed the thermometer of Professor Celsius, generally made use of in Sweden, and his was of Celsius's own making; the interval from the point of freezing to the point of boiling water, is equally divided in this thermometer into one hundred parts. In the names of plants, we have chiefly employed after his directions the Linnæan names, in the last edition of his *Spec. Plantarum*, and *Systema Naturæ*, vol. ii. But as his descriptions of animals, plants, and minerals are very short, he promises to give them at large some time hence in a Latin work.

He gives you his observations as they occurred day after day, which makes him a faithful relater, notwithstanding it takes away all elegance of style, and often occasions him to make very sudden transitions from subjects very foreign to one another.

At last he arms himself with a very noble indifference against the criticism of several people, founded on the great aim he had in view by his performance, which was no less than *public utility*. This he looks upon as the true reward of his pains and expences.

The map, and drawings of the American birds and animals were not in the original, but copied from original drawings, and real birds and animals from North America.

We find it necessary here to mention, that as many articles in Mr. Kalm's travels required illustrations, the publisher has taken the liberty to join here and there some notes, which are marked at the end with F. The other notes not thus marked were kindly communicated by the publisher's friends.

PETER KALM'S TRAVELS.

AUGUST the 5th, 1748, I with my servant Lars Yungström (who joined to his abilities as gardener, a tolerable skill in mechanics and drawing) went at Gravesend on board the Mary gally, Captain Lawfon, bound for Philadelphia; and though it was so late as six o'clock in the afternoon, we weighed anchor and sailed a good way down the Thames before we again came to anchor.

Aug. 6th. Very early in the morning we resumed our voyage, and after a few hours sailing we came to the mouth of the Thames, where we turned into the channel and sailed along the Kentish coast, which consists of steep and almost perpendicular chalk hills, covered at the top with some soil and a fine verdure, and including strata of flints, as it frequently is found in this kind of chalk hills in the rest of England; and we were delighted in viewing on them excellent corn fields, covered for the greatest part with wheat, then ripening.

At six o'clock at night, we arrived at Deal, a little well known town, situate at the entrance of a bay exposed to the southern and easterly winds. Here commonly the outward-bound ships provide themselves with greens, fresh victuals, brandy, and many more articles. This trade, a fishery, and in the last war the equipping of privateers, has enriched the inhabitants.

Aug. 7th. When the tide was out, I saw numbers of fishermen resorting to the sandy shallow places, where they find round small eminences caused by the excrements of the log worms, or sea worms, (*lumbrici marini* Linn.) who live in the holes leading to these hillocks, sometimes eighteen inches deep, and they are then dug out with a small three-tacked iron fork, and used as baits.

Aug. 8th. At three o'clock we tided down the channel, passed Dover, and saw plainly the opinion of the celebrated Camden in his *Britannia* confirmed, that here England had been formerly joined to France and Flanders by an isthmus. Both shores form here two opposite points; and both are formed of the same chalk hills, which have the same configuration, so that a person acquainted with the English coasts and approaching those of Picardy afterwards, without knowing them to be such, would certainly take them to be the English ones.*

Aug. 9th—12th. We tided and alternately sailed down the channel, and passed Dungeness, Fairlight, the Isle of Wight, Portsmouth, the peninsula of Portland and Bolthead, a point behind which Plymouth lies; during all which time we had very little wind.

Aug. 13th. Towards night we got out of the English channel into the Bay of Biscay.

Aug. 14th. We had contrary wind, and this increased the rolling of the ship, for it is generally remarked that the Bay of Biscay has the greatest and broadest waves, which are of equal size of those between America and Europe; they are commonly half an English mile in length, and have a height proportionable to it. The Baltic and the German ocean has on the contrary short and broken waves.

Whenever an animal is killed on board the ship, the sailors commonly hang some fresh pieces of meat for a while into the sea; and it is said, it then keeps better.

Aug. 15th. The same swell of the sea still continued, but the waves began to smooth, and a foam swimming on them was said to forebode in calm weather a continuance of the same for some days.

About noon a north-easterly breeze sprung up, and in the afternoon it blew more, and this gave us a fine spectacle; for the great waves rolled the water in great sheets, in one direction, and the north-easterly wind curled the surface of these waves quite in another. By the beating and dashing of the waves against one another, with a more than ordinary violence, we could see that we passed a current, whose direction the captain could not determine.

Aug. 16th—21st. The same favourable breeze continued to our great comfort and amazement, for the captain observed that it was very uncommon to meet with an easterly or north-easterly wind between Europe and the Azores (which the sailors call the Western Islands) for more than two days together; for the more common wind is here a westerly one; but beyond the Azores they find a great variety of winds, especially about this time of the year; nor do the westerly winds continue long beyond these isles; and to this it is owing, that when navigators have passed the Azores, they think they have performed one-half of the voyage, although in reality it be but one-third part. These isles come seldom in sight; for the navigators keep off them, on account of the dangerous rocks under water surrounding them. Upon observation and comparison of the journal, we found that we were in forty-three degrees twenty-four minutes north latitude, and thirty and a half degrees west longitude from London.

* The same opinion has been confirmed by Mr. Buffon in his *Hist. Naturelle*.

Aug. 22d. About noon the captain assured us, that in twenty-four hours we should have a south-west wind; and upon my enquiring into the reasons of his fortelling this with certainty, he pointed at some clouds in the south-west, whose points turned towards north-east, and said they were occasioned by a wind from the opposite quarter. At this time I was told we were about half way to Pennsylvania.

Aug. 23d. About seven o'clock in the morning the expected south-west wind sprung up, and soon accelerated our course so much that we went at the rate of eight knots an hour.

Aug. 24th. The wind shifted and was in our teeth. We were told by some of the crew to expect a little storm, the higher clouds being very thin and striped and scattered about the sky like parcels of combed wool, or so many skains of yarn, which they said forbode a storm. These striped clouds ran north-west and south-east, in the direction of the wind we then had. Towards night the wind abated and we had a perfect calm, which is a sign of a change of wind.

Aug. 25th and 26th. A west wind sprung up and grew stronger and stronger, so that at last the waves washed our deck.

Aug. 27th. In the morning we got a better wind, which went through various points of the compass, and brought on a storm from north-east, towards night.

Our captain told me an observation founded on long experience, viz. that though the winds changed frequently in the Atlantic ocean, especially in summer time, the most frequent, however, was the western; and this accounts for the passage from America to Europe commonly being shorter than that from Europe to America. Besides this, the winds in the Atlantic during summer are frequently partial, so that a storm may rage on one part of it, and within a few miles of the place little or no storm at all may be felt. In winter the winds are more constant, extensive, and violent; so that the same wind reigns on the greater part of the ocean for a good while, and causes greater waves than in summer.

Aug. 30th. As I had observed the night before some strong flashes of lightening without any subsequent clap of thunder, I enquired of our captain, whether he could assign any reasons for it. He told me these phænomena were pretty common, and the consequence of a preceding heat in the atmosphere; but that when lightnings were observed in winter, prudent navigators were used to reef their sails, as they are by this sign certain of an impendent storm; and so likewise in that season, a cloud rising from the north-west is an infallible forerunner of a great tempest.

Sept. 7th. As we had the first day of the month contrary wind, on the second it shifted to the north, was again contrary the third, and fair the fourth and following days. The fifth we were in forty degrees, three minutes, north latitude, and between fifty-three and fifty-four degrees west longitude from London.

Besides the common waves rolling with the wind, we met on the fourth and fifth instant with waves coming from south-west, which the captain gave as a mark of a former storm from that quarter in this neighbourhood.

Sept. 8th. We crossed by a moderate wind, a sea with the highest waves we met on the whole passage, attributed by the captain to the division between the great ocean and the inner American gulf; and soon after we met with waves greatly inferior to those we observed before.

Sept. 9th. In the afternoon we remarked that in some places the colour of the sea (which had been hitherto of a deep blue) was changed into a paler hue; some of these spots were narrow stripes of twelve or fourteen fathoms breadth, of a pale green colour, which is supposed to be caused by the sand, or, as some say, by the weeds under water

Sept. 12th. We were becalmed that day, and as we in this situation observed a ship, which we suspected to be a Spanish privateer, our fear was very great; but we saw, some days after our arrival at Philadelphia, the same ship arrive, and heard that they seeing us, had been under the same apprehensions with ourselves.

Sept. 13th. Captain Lawton, who kept his bed for the greater part of the voyage, on account of an indisposition, assured us yesterday we were in all appearance very near America: but as the mate was of a different opinion, and as the sailors could see no land from the head of the mast, nor find ground by the lead, we steered on directly towards the land. About three o'clock in the morning, the captain gave orders to heave the lead, and we found but ten fathom; the second mate himself took the lead, and called out ten and fourteen fathoms; but a moment after the ship struck on the sand, and this shock was followed by four other very violent ones. The consternation was incredible, and very justly might it be so; for there were above eighty persons on board, and the ship had but one boat: but happily our ship got off again, after having been turned. At day-break, which followed soon after, (for the accident happened half an hour past four) we saw the continent of America within a Swedish mile before us; the coast was whitish, low, and higher up covered with firs. We found out, that the sand we struck on, lay opposite Arcadia, in Maryland, in thirty-seven degrees, fifty minutes, north latitude.

We coasted the shores of Maryland all the day, but not being able to reach Cape Hinlopen, where we intended to take a pilot on board, we cruized all night before the bay of Delaware. The darkness of the night made us expect a rain, but we found that only a copious fall of dew ensued, which made our coats quite wet, and the pages of a book, accidentally left open on the deck, were in half an hour's time after sun-setting likewise wet, and we were told by the captain and the sailors, that both in England and America a copious dew was commonly followed by a hot and sultry day.

Sept. 14th. We saw land on our larboard in the west, which appeared to be low, white, sandy, and higher up the country covered with firs. Cape Hinlopen is a head of land running into the sea from the western shore, and has a village on it. The eastern shore belongs here to New Jersey, and the western to Pennsylvania. The bay of Delaware has many sands, and from four to eleven fathom water.

The fine woods of oak, hickory, and firs, covering both shores, made a fine appearance, and were partly employed in ship-building at Philadelphia; for which purpose every year some English captains take a passage in autumn to this town, and superintend the building of new ships during winter, with which they go to sea next spring: and at this time it was more usual than common, as the French and Spanish privateers had taken many English merchant ships.

A little after noon we reached the mouth of Delaware river, which is here about three English miles broad, but decreases gradually so much, that it is scarcely a mile broad at Philadelphia.

Here we were delighted in seeing now and then between the woods some farm-houses, surrounded with corn-fields, pastures well stocked with cattle, and meadows covered with fine hay; and more than one sense was agreeably affected, when the wind brought to us the finest effluvia of odoriferous plants and flowers, or that of the fresh made hay: these agreeable sensations and the fine scenery of nature on this continent, so new to us, continued till it grew quite dark.

Here I will return to sea, and give the reader a short view of the various occurrences belonging to natural history, during our crossing the ocean.

Of sea-weeds (*Fucus* Linn.) we saw, August the 16th and 17th, a kind which had a
similarity

similarity to a bunch of onions tied together; these bunches were of the size of the fist, and of a white colour. Near the coast of America, within the American gulf, September the 11th, we met likewise with several sea-weeds, one species of which was called by the sailors rock-weed; another kind looked like a string of pearls, and another was white, about a foot long, narrow, every where equally wide and quite strait. From August the 24th to September the 11th, we saw no other weeds but those commonly going under the name of gulf-weed, because they are supposed to come from the Gulf of Florida; others call it Sargazo, and Dr. Linnæus, *fucus natans*. Its stalk is very slender, rotundato-angulated, and of a dark green; it has many branches, and each of them has numerous leaves disposed in a row; they are extremely thin, are serrated, and are a line or a line and a half wide, so that they bear a great resemblance to the leaves of Iceland moss, their colour is a yellowish green. Its fruit, in a great measure, resembles unripe juniper berries, is round, greenish yellow, almost smooth on the outside, and grows under the leaves on short footstalks of two or three lines length; under each leaf are from one to three berries, but I never have seen them exceed that number. Some berries were small, and when cut were quite hollow, and consisted of a thin peel only, which is calculated to communicate their buoyancy to the whole plant. The leaves grow in proportion narrower, as they approach the extremities of the branches: their upper sides are smooth, the ribs are on the under sides, and there likewise appear small roots of two, three, or four lines length. I was told by our mate, that gulf-weed, dried and pounded, was given in America to women in child-bed, and besides this, it is also used there in fevers. The whole ocean is as if it were covered with this weed, and it must also be in immense quantities in the Gulf of Florida, from whence all this driving on the ocean is said to come. Several little shells, pointed like horns, and escharæ or horn-wracks are frequently found on it: and seldom is there one bundle of this plant to be met with, which does not contain either a minute shrimp or a small crab, the latter of which is the *cancer minutus* of Dr. Linnæus. Of these I collected eight, and of the former three, all which I put in a glass with water: the little shrimp moved as swift as an arrow round the glass, but sometimes its motion was slow, and sometimes it stood still on one side, or at the bottom of the glass. If one of the little crabs approached, it was seized by its fore paws, killed and sucked; for which reason they were careful to avoid their fate. It was quite of the shape of a shrimp; in swimming it moved always on one side, the sides and the tail moving alternately. It was capable of putting its fore paws entirely into its mouth; its antennæ were in continual motion. Having left these little shrimps together with the crabs during night, I found in the morning all the crabs killed and eaten by the shrimps. The former moved when alive with incredible swiftness in the water. Sometimes, when they were quite at the bottom of the glass, with a motion something like to that of a puceron or *podura* of Linnæus, they came in a moment to the surface of the water. In swimming they moved all their feet very close, sometimes they held them down as other crabs do, sometimes they lay on their backs, but as soon as the motion of their feet ceased, they always sunk to the bottom. The remaining shrimps I preserved in spirits, and the loss of my little crabs was soon repaired by other specimens which are so plentiful in each of the floating bundles of gulf-weed. For a more minute description of which I must refer the reader to another work I intend to publish. In some places we saw a crab of the size of the fist, swimming by the continual motion of its feet, which being at rest, the animal began immediately to sink. And one time I met with a great red crawfish or lobster, floating on the surface of the sea.

Blubbers, or medusæ Linn., we found of three kinds: the first is the *medusa aurita* Linn.;

Linn.; it is round, purple-coloured, opens like a bag, and in it are as if it were four white rings; their size varies from one inch diameter to six inches; they have not that nettling and burning quality which other blubbers have, such for instance as are on the coast of Norway, and in the ocean. These we met chiefly in the channel, and in the Bay of Biscay.

After having crossed more than half of the ocean between Europe and America, we met with a kind of blubber, which is known to sailors by the name of the Spanish or Portuguese man of war; it looks like a great bladder, or the lungs of a quadruped, compressed on both sides, about six inches in diameter, of a fine purple-red colour, and when touched by the naked skin of the human body, it causes a greater burning than any other kind of blubber. They are often overturned by the rolling of the waves, but they are again standing up in an instant, and keep the sharp or narrow side uppermost.

Within the American gulf we saw not only these Spanish men of war, but another kind too, for which the sailors had no other name but that of a blubber. It was of the size of a pewter plate, brown in the middle, with a pale margin, which was in continual motion.

Of the *lepas anatifera* Linn. I saw on the 30th of August a log of wood, which floated on the ocean, quite covered. Of insects I saw in the channel, when we were in sight of the Isle of Wight, several white butterflies, very like to the *Papilio Brassicæ* Linn. They never settled; and by their venturing at so great a distance from land they caused us just astonishment.

Some common flies were in our cabin alive during the whole voyage, and it cannot therefore be determined whether they were originally in America, or whether they came over with the Europeans.

Of cetaceous fish we met with porpoises, or as some sailors call them, sea-hogs* (*delphinus phocæna* Linn.) first in the channel, and then they continued every where on this side the Azores, where they are the only fish navigators met with; but beyond these isles they are seldom seen, till again in the neighbourhood of America we saw them equally frequent to the very mouth of Delaware river. They always appeared in shoals, some of which consisted of upwards of an hundred individuals; their swimming was very swift, and though they often swam along side of our ship, being taken as it were with the noise caused by the ship cutting the waves, they however soon outwent her, when they were tired with staring at her. They are from four to eight feet long, have a bill like in shape to that of a goose, a white belly, and leap up into the air frequently four feet high, and from four to eight feet in length; though their snoring indicates the effort which a leap of that nature costs them. Our sailors made many vain attempts to strike one of them with the harp iron from the fore-castle, when they came within reach, but their velocity always eluded their skill.

Another cetaceous fish, of the dolphin kind †, with which we met, is called by the

* The name of porpoise is certainly derived from the name *Porcopecce*, given to this genus by the Italians; and it is remarkable that almost all the European nations conspired in calling them sea-hogs, their name being in German *meer schwein*; the Danish, Swedish, and Norwegian, *marfvin*, from whence the French borrowed their *marfouin*. The natives of Iceland call them *suinhval*, i. e. a swine-whale, and so likewise the Slavonian nations have their *Swinia Morskaya*. Whether this consent arises from their rooting the sand at the bottom of the sea in quest of sand-eels and sea-worms like swine, or from the vast quantity of lard surrounding their bodies, is uncertain. F.

† Mr. Kalm is certainly mistaken in reckoning the bottle-nose amongst the Dolphin kind; it has no teeth in its mouth as all the fish of that class have, and therefore belongs to the first order of the whales, or those that are without teeth. See Mr. Pennant's *British Zoology*, vol. iii. p. 43., where it is called the beaked whale, and very well described; a drawing is seen in the explanatory table, n. I. Perhaps it would not be improper to call it *Balæna ampullata*. F.

failors bottle-nose; it swims in great shoals, has a head like a bottle, and is killed by a harpoon, and is sometimes eaten. These fish are very large, and some fully twelve feet long; their shape, and manner of tumbling and swimming, make them nearly related to porpoises. They are to be met with every where in the ocean from the channel to the very neighbourhood of America.

One whale we saw at a distance, and knew it by the water which it spouted up.

A dog-fish of a considerable size followed the ship for a little while, but it was soon out of sight, without our being able to determine to which species it belonged: this was the only cartilaginous fish we saw on the whole passage.

Of the boney fish, we saw several beyond the Azores, but never one on this side of those isles; one of them was of a large size, and we saw it at a distance; the failors called it an albecor, and it is Dr. Linnæus's scomber thynnus.

The dolphin of the English is the dorado of the Portuguese, and Dr. Linnæus calls it *coryphæna hippuris*; it is about two feet and a half long, near the head six inches deep, and three inches broad; from the head the dolphin decreases on all sides towards the tail, where its perpendicular depth is one inch and a half, and its breadth hardly one inch. The colour of the back near the head is a fine green on a silver ground, but near the tail of a deep blue; the belly is white, and sometimes mixed with a deep yellow, on the sides it has some round pale brown spots. It has six and not seven fins as was imagined; two of them are on the breast, two on the belly, one at the tail extending to the anus, and one along the whole back, which is of a fine blue: when the fish is just taken the extremities of the most outward rays in the tail were eight inches, one from another. Their motion when they swam behind, or along side of the ship, was very slow, and gave a fair opportunity to hit them with the harpoon, though some are taken with a hook and line, and a bait of chicken bowels, small fish, or pieces of his own species, or the flying fish, which latter are their chief food: and it is by their chasing them, that the flying fish leave their element to find shelter in one to which they are strangers. The dolphins sometimes leap a fathom out of the water, and love to swim about casks and logs of wood, that sometimes drive in the sea. They are eaten with thick butter, when boiled, and sometimes fried, and afford a palatable food, but rather somewhat dry. In the bellies of the fish of this species which we caught, several animals were found, viz. an ostracion; a little fish with blue eyes, which was yet alive, being just the moment before swallowed, and measuring two inches in length; another little fish; a curious marine insect, and a flying fish, all which not yet being damaged by digestion, I preserved in spirits.

The flying fish (*exocoetus volitans* Linn.) are always seen in great shoals, sometimes of an hundred or more getting at once out of the water, being pursued by greater fish, and chiefly by dolphins; they rise about a yard, and even a fathom above the water in their flight, but this latter height they only are at, when they take their flight from the top of a wave; and sometimes, it is said, they fall on the deck of ships. The greatest distance they fly is a good musket shot, and this they perform in less than half a minute's time; their motion is somewhat like that of the yellow-hammer, (*Emberiza Citrinella* Linn.) It is very remarkable that I found the course they took always to be against the wind, and though I was contradicted by the failors, who affirmed that they went at any direction, I nevertheless was confirmed in my opinion by a careful observation during the whole voyage, according to which they fly constantly either directly against the wind, or somewhat in an oblique direction*.

* In Mr. Pennant's British Zoology, vol. iii. p. 282., is the best account of this fish to be met with; and in his British Zoology, illustrated by plates and brief explanations, is plate xlv., a good and exact drawing of the fish, the upper figure representing it in front, the lower sideways. F.

We saw likewise the fish called Bonetos, (*Scomber Pelamys* Linn.) they were likewise in shoals, hunting some smaller fish, which chase caused a noise like to that of a cascade, because they were all swimming close in a body; but they always kept out of the reach of our harpoons.

Of amphibious animals, or reptiles; we met twice with a turtle, one of which was sleeping, the other swam without taking notice of our ship; both were of two feet diameter.

Birds are pretty frequently seen on the ocean, though aquatic birds are more common than land birds.

The Petrel (*Procellaria Pelagica* Linn.) was our companion from the channel to the shores of America. Flocks of this bird were always about our ship, chiefly in that part of the sea, which being cut by the ship, forms a smooth surface, where they frequently seem to fettle, though always on the wing. They pick up or examine every thing that falls accidentally from the ship, or is thrown over-board: little fish seem to be their chief food; in day-time they are silent, in the dark, clamorous; they are reputed to forebode a storm, for which reason the sailors disliking their company, complimented them with the name of witches; but they are as frequent in fair weather, without a storm following their appearance. To me it appeared as if they staid sometimes half an hour and longer under the waves, and the sailors assured me they did. They look like swallows, and like them, they skim sometimes on the water.

The Shearwater (*Procellaria Puffinus* Linn.) is another sea-bird, which we saw every where on our voyage, from the channel to the American coasts; it has much the appearance and size of the dark gray sea-gull, or of a duck; it has a brown back, and commonly a white ring round its neck, and a peculiar flow way of flying. We plainly saw some of these birds feed on fish.

The Tropic Bird (*Phaëton æthereus* Linn.) has very much the shape of a gull, but two very long feathers, which it has in its tail, distinguish it enough from any other bird; its flight is often exceedingly high: the first of this kind we met was at about forty degrees north latitude and forty-nine or fifty degrees of west longitude from London.

Common Gulls (*Larus canus* Linn.) we saw, when we were opposite the Land's End, the most westerly cape of England, and when, according to our reckoning, we were opposite Ireland.

Terns (*Sterna hirundo* Linn.) though of a somewhat darker colour than the common ones, we found after the forty-first degree of north latitude and forty-seventh degree west longitude from London, very plentifully, and sometimes in flocks of some hundreds; sometimes they settled, as if tired, on our ship.

Within the American gulph we discovered a sea-bird at a little distance from the ship, which the sailors called a Sea-hen.

Land-birds are now and then seen at sea, and sometimes at a good distance from any land, so that it is often difficult to account for their appearance in so uncommon a place. August the 18th, we saw a bird which settled on our ship, and was perfectly like the great titmouse, (*Parus major* Linn.) upon an attempt to catch it, it got behind the sails, and could never be caught.

Sept. 1st. We observed some land-birds flying about our ship, which we took for Sand Martins (*Hirundo riparia* Linn.) sometimes they settled on our ship, or on the sails; they were of a greyish brown colour on their back, their breast white, and the tail somewhat furcated; a heavy shower of rain drove them afterwards away. September the 2d a swallow fluttered about the ship, and sometimes it settled on the mast; it seemed to be very tired; several times it approached our cabin windows, as if it was willing to take shelter there. These cases happened about forty degrees of north latitude and

between forty-seven and forty-nine degrees west longitude from London, and also about twenty degrees longitude or more than nine hundred and twenty sea miles from any land whatsoever.

Sept. 10th. Within the American gulph a large bird, which we took for an owl, and likewise a little bird, settled on our sails.

Sept. 12th. A wood-pecker settled on our rigging: its back was of a speckled grey, and it seemed extremely fatigued. And another land-bird of the passerine class, endeavoured to take shelter and rest on our ship.

Before I entirely take leave of the sea I will communicate my observations on two curious phænomena.

In the channel and in the ocean we saw, at night-time, sparks of fire, as if flowing on the water, especially where it was agitated, sometimes one single spark swam for the space of more than one minute on the ocean before it vanished. The sailors observed them commonly to appear during and after a storm from the north, and that often the sea is as if it were full of fire, and that some such shining sparks would likewise stick to the masts and sails.

Sometimes this light had not the appearance of sparks, but looked rather like the phosphorescence of putrid wood.

The Thames water which made our provision of fresh water, is reputed to be the best of any. It not only settled in the oak casks it is kept in, but becomes in a little time stinking, when stopped up; however, this nauseous smell it soon loses, after being filled into large stone jugs, and exposed to the open fresh air for two or three hours together. Often the vapours arising from a cask which has been kept close and stopped up for a great while take fire, if a candle is held near them when the cask is opened; and the Thames water is thought to have more of this quality than any other; though I was told that this even happened with any other water in the same circumstances.

Now I can resume my narrative; and therefore observe, that we afterwards sailed on the river with a fair wind, pretty late at night. In the dawn of the evening we passed by Newcastle, a little town on the western shore of the river Delaware. It was already so dark that we could hardly know it, but by the light which appeared through some of the windows. The Dutch are said to have been the first founders of this place, which is therefore reckoned the most ancient in the country, even more ancient than Philadelphia. But its trade can by no means be compared with the Philadelphia trade, though its situation has more advantages in several respects; one of which is, that the river seldom freezes before it, and consequently ships can come in and go out at any time. But near Philadelphia it is almost every winter covered with ice, so that navigation is interrupted for some weeks together. But the country about Philadelphia and farther up, being highly cultivated, and the people bringing all their goods to that place, Newcastle must always be inferior to it.

I mentioned that the Dutch laid the foundations of this town. This happened at the time when this country was as yet subject to Sweden. But the Dutch crept in, and intended by degrees to dispossess the Swedes, as a people who had taken possession of their property. They succeeded in their attempt, for the Swedes not being able to bear with this encroachment, came to a war in which the Dutch got the better. But they did not enjoy the fruits of their victory long; for a few years after, the English came and deprived them of their acquisition, and have ever since continued in the undisturbed possession of the country. Somewhat later at night we cast anchor, the pilot not venturing to carry the ship up the river in the dark, several sands being in the way.

Sept. 15th. In the dawn of the morning we weighed anchor, and continued our voyage up the river. The country was inhabited almost every where on both sides. The farm-houses were however pretty far asunder. About eight o'clock in the morning we sailed by the little town of Chester, on the western side of the river. In this town, our mate, who was born in Philadelphia, shewed me the places which the Swedes still inhabit.

At last we arrived in Philadelphia about ten o'clock in the morning. We had not been more than six weeks, or (to speak more accurately) not quite forty-one days on our voyage from Gravesend to this place, including the time we spent at Deal, in supplying ourselves with the necessary fresh provisions, &c.; our voyage was therefore reckoned one of the shortest, for it is common in winter-time to be fourteen or more weeks in coming from Gravesend to Philadelphia. Hardly any body ever had a more pleasant voyage over this great ocean than we had; Captain Lawson affirmed this several times, nay, he assured us he had never seen such calm weather in this ocean, though he had crossed it very often. The wind was generally so favourable that a boat of a middling size might have sailed in perfect safety. The sea never went over our cabin, and but once over the deck, and that was only in a swell. The weather indeed was so clear that a great number of the Germans on board slept on the deck. The cabin windows needed not the shutters. All these are circumstances which show the uncommon goodness of the weather.

Captain Lawson's civility increased the pleasure of the voyage.

As soon as we came to the town and had cast anchor, many of the inhabitants came on board, to enquire for letters. They took all those which they could carry, either for themselves or for their friends. Those which remained, the captain ordered to be carried on shore and left at a coffee-house; by this means he was rid of the trouble of delivering them himself. I afterwards went on shore with him; but before he went, he strictly charged the second mate to let no one of the German refugees out of the ship, unless he paid for his passage, or somebody else paid for him, or bought him.

On my leaving London, I received letters of recommendation from Mr. Abraham Spalding, Mr. Peter Collinson, Dr. Mitchel, and others, to their friends here. It was easy for me therefore to get acquaintance. Mr. Benjamin Franklin, to whom Pennsylvania is indebted for its welfare, and the learned world for many new discoveries in electricity, was the first who took notice of me, and introduced me to many of his friends. He gave me all necessary instructions, and shewed me his kindness on many occasions.

I went to-day, accompanied by Mr. Jacob Bengtson, a member of the Swedish consistory, and the sculptor Gustavus Hesselius, to see the town and the fields which lay before it. (The former is brother to the Rev. Messrs. Andrew and Samuel Hesselius, both ministers at Christiana in New Sweden, and of the late Dr. John Hesselius in the provinces of Nerik and Wermeland). My new friend had followed his brother Andrew in 1711 to this country, and had since lived in it. I found that I was now come into a new world. Whenever I looked to the ground, I every where found such plants as I had never seen before; when I saw a tree, I was forced to stop, and ask those who accompanied me, how it was called. The first plant which struck my eyes was an andropogon, or a kind of grass; and grass is a part of botany I always delighted in. I was seized with terror at the thought of ranging so many new and unknown parts of natural history. At first I only considered the plants, without venturing on a more accurate examination.

At night I took up my lodging with a grocer who was a quaker; and I met with very good honest people in this house, such as most people of this profession appeared to me. I and my Yungström, the companion of my voyage, had a room, candles, beds, attendance, and three meals a-day, if we chose to have so many, for twenty shillings per week in Pennsylvania currency. But wood, washing, and wine, if required, were to be paid for besides.

Sept. the 16th. Before I proceed I must give a short description of Philadelphia, which I shall frequently mention in the sequel of my travels. I here put down several particulars which I marked during my stay at that place, as a help to my memory.

Philadelphia, the capital of Pennsylvania, a province which makes part of what formerly was called New Sweden, is one of the principal towns in North America; and next to Boston the greatest. It is situated almost in the centre of the English colonies, and its lat. is thirty-nine deg. and fifty min. but its west long. from London near seventy-five deg.

This town was built in the year 1683, or as others say, in 1682, by the well-known quaker William Pen, who got this whole province by a grant from Charles the Second, King of England, after Sweden had given up its claims to it. According to Pen's plan, the town was to have been built upon a piece of land which is formed by the union of the rivers Delaware and Skunkill, in a quadrangular form, two English miles long and one broad. The eastern side would therefore have been bounded by the Delaware, and the western by the Skunkill. They had actually begun to build houses on both these rivers, for eight capital streets, each two English miles long, and sixteen lesser streets (or lanes) across them, each one mile in length, were marked out with a considerable breadth, and in straight lines. The place was at that time almost an entire wilderness covered with thick forests, and belonged to three Swedish brothers called Sven's Sæner (sons of Sven) who had settled in it. They with difficulty left the place; the situation of which was very advantageous. But at last they were persuaded to it by Pen, who gave them a few English miles from that place, twice the space of country they inhabited. However Pen himself, and his descendants after him, have considerably lessened the ground belonging to them, by repeated mensurations, under pretence that they had taken more than they ought.

But the inhabitants could not be got in sufficient number to fill a place of such extent. The plan therefore about the river Skunkill was laid aside till more favourable circumstances should occur, and the houses were only built along the Delaware. This river flows along the eastern side of the town, is of great advantage to its trade, and gives a fine prospect. The houses which had already been built upon the Skunkill were transplanted hitherto by degrees. This town accordingly lies in a very pleasant country from north to south along the river. It measures somewhat more than an English mile in length; and its breadth in some places is half a mile or more. The ground is flat and consists of sand mixed with a little clay. Experience has shewn that the air of this place is very healthy.

The streets are regular, fine, and most of them are fifty foot, English measure, broad. Arch-street measures sixty-six feet in breadth, and Market-street, or the principal street where the market is kept, near a hundred. Those which run longitudinally, or from north to south are seven, exclusive of a little one, which runs along the river, to the south of the market, and is called Water-street. The lanes which go across, and were intended to reach from the Delaware to the Skunkill, are eight in number. They do not go quite from east to west, but deviate a little from that direction. All

the streets except two which are nearest to the river, run in a straight line, and make right angles at the intersections; some are paved, others are not, and it seems less necessary, since the ground is sandy, and therefore soon absorbs the wet. But in most of the streets is a pavement of flags, a fathom or more broad, laid before the houses, and posts put on the outside three or four fathom asunder. Under the roofs are gutters which are carefully connected with pipes, and by this means, those who walk under them when it rains, or when the snow melts, need not fear being wet by the dropping from the roofs.

The houses make a good appearance, are frequently several stories high, and built either of bricks or of stone; but the former are more commonly used, since bricks are made before the town, and are well burnt. The stone which has been employed in the building of other houses is a mixture of black or grey glimmer, running in undulated veins, and of a loose, and quite small grained limestone, which runs scattered between the bendings of the other veins, and are of a grey colour, excepting here and there some single grains of sand of a paler hue. The glimmer makes the greatest part of the stone, but the mixture is sometimes of another kind, as I shall relate hereafter under the article, eleventh of October. This stone is now got in great quantities in the country, is easily cut, and has the good quality of not attracting the moisture in a wet season. Very good lime is burnt every where hereabouts for masonry.

The houses are covered with shingles. The wood for this purpose is taken from the *cupressus thyoides* Linn. or a tree which Swedes here call the white juniper tree, and the English, the white cedar. Swamps and morasses formerly were full of them, but at present these trees are for the greatest part cut down, and no attempt has as yet been made to plant new ones. The wood is very light, rots less than any other in this country, and for that reason is exceeding good for roofs, for it is not too heavy for the walls, and will serve for forty or fifty years together. But many people already begin to fear, that these roofs will in time be looked upon as having been very detrimental to the city. For being so very light, most people who have built their houses of stone or bricks, have been led to make their walls extremely thin. But at present this kind of wood is almost entirely destroyed. Whenever therefore in process of time these roofs decay, the people will be obliged to have recourse to the heavier materials of tiles, or the like, which the walls will not be strong enough to bear. The roof will therefore require supports, or the people be obliged to pull down the walls and to build new ones, or to take other steps for securing them. Several people have already in late years begun to make roofs of tiles.

Among the public buildings I will first mention churches, of which there are several, for God is served in various ways in this country.

1. The English established church stands in the northern part of the town, at some distance from the market, and is the finest of all. It has a little inconsiderable steeple, in which is a bell to be rung when it is time to go to church, and on burials. It has likewise a clock which strikes the hours. This building which is called Christ Church, was founded towards the end of the last century, but has lately been rebuilt and more adorned. It has two ministers who get the greatest part of their salary from England. In the beginning of this century, the Swedish minister the Rev. Mr. Rudmann, performed the functions of a clergyman to the English congregation for near two years, during the absence of their own clergyman.

2. The Swedish church, which is otherwise called the church of Weekacko, is on the southern part of the town, and almost without it on the river's side, and its situation is therefore more agreeable than that of any other. I shall have an opportunity of describing

describing it more exactly, when I shall speak of the Swedes in particular, who live in this place.

3. The German Lutheran church is on the north-west side of the town. On my arrival in America it had a little steeple, but that being put up by an ignorant architect, before the walls of the church were quite dry, they leaned forwards by its weight, and therefore they were forced to pull it down again in the autumn of the year 1750. About that time the congregation received a fine organ from Germany. They have only one minister, who likewise preaches at another Lutheran church in Germantown. He preaches alternately one Sunday in that church, and another in this. The first clergyman which the Lutherans had in this town, was the Rev. Mr. Muhlenberg, who laid the foundations of this church in 1743, and being called to another place afterwards, the Rev. Mr. Brunholz from Sleswick, was his successor, and is yet here. Both these gentlemen were sent to this place from Hall in Saxony, and have been a great advantage to it by their peculiar talent of preaching in an edifying manner. A little while before this church was built, the Lutheran Germans had no clergyman for themselves, so that the every-where beloved Swedish minister at Weekacko, Mr. Dylander, preached likewise to them. He therefore preached three sermons every Sunday; the first early in the morning to the Germans; the second to the Swedes; and the third in the afternoon to the English; and besides this, he went all the week into the country, and instructed the Germans who lived separately there. He therefore frequently preached sixteen sermons a-week. And after his death, which happened in November 1741, the Germans first wrote to Germany for a clergyman for themselves. This congregation is at present very numerous, so that every Sunday the church is very much crowded. It has two galleries, but no vestry. They do not sing the collects, but read them before the altar.

4. The old Presbyterian church is not far from the market, and on the south side of Market-street. It is of a middling size, and built in the year 1704, as the inscription on the northern pediment shews. The roof is built almost hemispherical, or at least forms a hexagon. The whole building stands from north to south, for the Presbyterians do not regard, as other people do, whether their churches look towards a certain point of the heavens or not.

5. The new Presbyterian church was built in the year 1750, by the new-lights in the north-western part of the town. By the name of new-lights, are understood the people who have, from different religions, become profelytes to the well known Whitefield, who in the years 1739, 1740, and likewise in 1744 and 1745, travelled through almost all the English colonies. His delivery, his extraordinary zeal, and other talents so well adapted to the intellects of his hearers, made him so popular that he frequently, especially in the two first years, got from eight thousand to twenty thousand hearers in the fields. His intention in these travels was to collect money for an orphans' hospital which had been erected in Georgia. He here frequently collected seventy pounds sterling at one sermon; nay, at two sermons which he preached in the year 1740, both on one Sunday, at Philadelphia, he got an hundred and fifty pounds. The profelytes of this man, or the above-mentioned new-lights, are at present merely a sect of Presbyterians. For though Whitefield was originally a clergyman of the English church, yet he deviated by little and little from her doctrines; and on arriving in the year 1744 at Boston in New England, he disputed with the Presbyterians about their doctrines so much that he almost entirely embraced them. For Whitefield was no great disputant, and could therefore easily be led by these

these cunning people, whithersoever they would have him. This likewise during his latter stay in America caused his audience to be less numerous than during the first. The new-lights built first, in the year 1741, a great house in the western part of the town, to hold divine service in. But a division arising amongst them after the departure of Whitefield, and besides on other accounts, the building was sold to the town in the beginning of the year 1750, and destined for a school. The new-lights then built a church which I call the new Presbyterian one. On its eastern pediment is the following inscription in golden letters: *Templum Presbyterianum, annuente Numine, erectum, Anno Dom. MDCCL.*

6. The old German reformed church is built in the west-north-west part of the town, and looks like the church in the Ladugoordfield near Stockholm. It is not yet finished, though for several years together, the congregation has kept up divine service in it. These Germans attended the German service at the Swedish church, whilst the Swedish minister, Mr. Dylander, lived.—But as the Lutherans got a clergyman for themselves on the death of the last, those of the reformed church made likewise preparations to get one from Dordrecht; and the first who was sent to them, was the Rev. Mr. Slaughter, whom I found on my arrival. But in the year 1750, another clergyman of the reformed church arrived from Holland, and by his artful behaviour so insinuated himself into the favour of the Rev. Mr. Slaughter's congregation, that the latter lost almost half his audience. The two clergymen then disputed for several Sundays together about the pulpit; nay, people relate that the new comer mounted the pulpit on a Saturday, and staid in it all night. The other being thus excluded, the two parties in the audience, made themselves the subject both of the laughter and of the scorn of the whole town, by beating and bruising each other, and committing other excesses. The affair was inquired into by the magistrates, and decided in favour of the Rev. Mr. Slaughter, the person who had been abused.

7. The new reformed church was built at a little distance from the old one by the party of the clergyman who had lost his cause. This man however had influence enough to bring over to his party almost the whole audience of his antagonist, at the end of the year 1750, and therefore this new church will soon be useless.

8. 9. The Quakers have two meetings, one in the market, and the other in the northern part of the town. In them are, according to the custom of this people, neither altars, nor pulpits, nor any other ornaments usual in churches; but only seats and some sconces. They meet thrice every Sunday in them, and besides that at certain times every week or every month. I shall mention more about them hereafter.

10. The Baptists have their service in the northern part of the town.

11. The Roman Catholics have in the south-west part of the town a great house, which is well adorned within, and has an organ.

12. The Moravian Brethren have hired a great house, in the northern part of the town, in which they performed the service both in German and in English; not only twice or three times every Sunday, but likewise every night after it is grown dark. But in the winter of the year 1750, they were obliged to drop their evening meetings; some wanton young fellows having several times disturbed the congregation, by an instrument sounding like the note of a cuckoo; for this noise they made in a dark corner, not only at the end of every stanza, but likewise at that of every line, whilst they were singing a hymn.

Those

Those of the English church, the New-lights, the Quakers, and the Germans of the reformed religion, have each of them their burying-places on one side out of town, and not near their churches, though the first of these sometimes make an exception. All the others bury their dead in their church-yards, and the Moravian Brethren bury where they can. The negroes are buried in a particular place out of town.

I now proceed to mention the other public buildings in Philadelphia.

The town-hall, or the place where the assemblies are held, is situated in the western part of the town; it is a fine large building, having a tower with a bell in the middle, and is the greatest ornament to the town. The deputies of each province meet in it commonly every October, or even more frequently, if circumstances require it, in order to consider of the welfare of the country, and to hold their parliaments or diets in miniature. There they revise the old laws, and make new ones.

On one side of this building stands the library, which was first begun in the year 1742, on a public spirited plan, formed and put in execution by the learned Mr. Franklin; for he persuaded first the most substantial people in the town to pay forty shillings at the outset, and afterwards annually ten shillings, all in Pennsylvania currency, towards purchasing all kinds of useful books. The subscribers are entitled to make use of the books. Other people are likewise at liberty to borrow them for a certain time, but must leave a pledge, and pay eight-pence a week for a folio volume, six-pence for a quarto, and four-pence for all others of a smaller size. As soon as the time allowed a person for the perusal of the volume is elapsed, it must be returned, or he is fined. The money arising in this manner is employed for the salary of the librarian, and for purchasing new books. There is already a fine collection of excellent works, most of them English, many French and Latin, but few in any other language. The subscribers were so kind to me, as to order the librarian, during my stay here, to lend me every book which I should want, without requiring any payment. The library was open every Saturday from four to eight o'clock in the afternoon. Besides the books, several mathematical and physical instruments, and a large collection of natural curiosities, were to be seen in it. Several little libraries were founded in the town on the same footing or nearly with this.

The court-house stands in the middle of Market-street, to the west of the market; it is a fine building, with a little tower in which there is a bell. Below and round about this building the market is properly kept every week.

The building of the academy is in the western part of the town. It was formerly, as I have before mentioned, a meeting-house of the followers of Whitefield; but they sold it in the year 1750, and it was destined to be the seat of an university, or to express myself in more exact terms, to be a college; it was therefore fitted up to this purpose. The youths are here only taught those things which they learn in our common schools; but in time, such lectures are intended to be read here as are usual in real universities.

At the close of the last war, a redoubt was erected here, on the south side of the town, near the river, to prevent the French and Spanish privateers from landing. But this was done after a very strong debate. For the Quakers opposed all fortifications, as contrary to the tenets of their religion, which allow not Christians to make war, either offensive or defensive, but direct them to place their trust in the Almighty alone. Several papers were then handed about for and against the opinion. But the enemy's privateers having taken several vessels belonging to the town, in the river, many of the Quakers, if not all of them, found it reasonable to forward the building of the fortification as much as possible, at least by a supply of money.

Of

Of all the natural advantages of the town its temperate climate is the most considerable, the winter not being over severe, and its duration but short, and the summer not too hot; the country round about bringing forth those fruits in the greatest plenty, which are raised by husbandry. Their September and October are like the beginning of the Swedish August. And the first days in their February are frequently as pleasant as the end of April and the beginning of May in Sweden. Even their coldest days in some winters have been no severer than the days at the end of autumn are in the middlemost parts of Sweden, and the southern ones of Finland.

The good and clear water in Philadelphia is likewise one of its advantages. For though there are no fountains in the town, yet there is a well in every house, and several in the streets, all which afford excellent water for boiling, drinking, washing, and other uses. The water is commonly met with at the depth of forty feet. The water of the river Delaware is likewise good. But in making the wells, a fault is frequently committed, which in several places of the town spoils the water, which is naturally good; I shall in the sequel take an opportunity of speaking further about it.

The Delaware is exceeding convenient for trade. It is one of the greatest rivers in the world: is three English miles broad at its mouth, two miles at the town of Wilmington, and three quarters of a mile at Philadelphia. This city lies within ninety or an hundred English miles from the sea, or from the place where the river Delaware discharges itself into the bay of that name. Yet its depth is hardly ever less than five or six fathoms. The greatest ships therefore can sail quite up to the town, and anchor in good ground in five fathoms of water, on the side of the bridge. The water here has no longer a saltish taste, and therefore all destructive worms which have fastened themselves to the ships in the sea, and have pierced holes into them, either die, or drop off, after the ship has been here for a while.

The only disadvantage which trade labours under here is the freezing of the river almost every winter for a month or more. For during that time the navigation is entirely stopped. But this does not happen at Boston, New York, and other towns which are nearer the sea.

The tide comes up to Philadelphia, and even goes thirty miles higher, to Trenton. The difference between high and low water is eight feet at Philadelphia.

The cataracts of the Delaware, near Trenton, and of the Skunkill, at some distance from Philadelphia, make these rivers useless further up the country, in regard to the conveyance of goods either from or to Philadelphia. Both must therefore be carried on waggons or carts. It has therefore already been thought of to make these two rivers navigable in time, at least for large boats and small vessels.

Several ships are annually built of American oak, in the docks which are made in different parts of the town and about it; yet they can by no means be put in comparison with those built of European oak, in point of goodness and duration.

The town carries on a great trade both with the inhabitants of the country, and to other parts of the world, especially to the West Indies, South America, and the Antilles; to England, Ireland, Portugal, and to several English colonies in North America. Yet none but English ships are allowed to come into this port.

Philadelphia reaps the greatest profits from its trade to the West Indies: for thither the inhabitants ship almost every day a quantity of flour, butter, flesh, and other victuals, timber, plank, and the like. In return they receive either sugar, molasses, rum, indigo, mahogany, and other goods, or ready money. The true mahogany, which grows in Jamaica, is at present almost all cut down.

They

They send both West India goods and their own productions to England; the latter are all sorts of woods, especially black walnut, and oak planks for ships; ships ready built, iron, hides, and tar. Yet this latter is properly bought in New Jersey, the forests of which province are consequently more ruined than any others. Ready money is likewise sent over to England; from whence in return they get all sorts of goods there manufactured, viz. fine and coarse cloth, linen, iron ware, and other wrought metals, and East India goods; for it is to be observed, that England supplies Philadelphia with almost all stuffs and manufactured goods which are wanted here.

A great quantity of linseed goes annually to Ireland, together with many of the ships which are built here. Portugal gets wheat corn, flour, and maize which is not ground. Spain sometimes takes some corn. But all the money which is got in these several countries, must immediately be sent to England, in payment for the goods which are got from thence, and yet those sums are not sufficient to pay all the debts.

But to shew more exactly what the town and province have imported from England, in different years, I shall here insert an extract from the English custom-house books, which I got from the engineer Lewis Evans, at Philadelphia. This gentleman had desired one of his friends in London to send him a complete account of all the goods shipped from England to Pennsylvania in several years. He got this account, and though the goods are not enumerated in it, yet their value in money is calculated. Such extracts from the custom-house books have been made for every North American province, in order to convince the English parliament, that those provinces have taken greater quantities of the goods in that kingdom ever since they have turned their money into bills.

I have taken the copy from the original itself; and it is to be observed that it begins with the Christmas of the year 1722, and ends about the same time of the year 1747. In the first column is the value of the foreign goods, the duty for which has already been paid in England. The second column shews the value of the goods manufactured in England, and exported to Pennsylvania. And in the last column these two sums are added together, but at the bottom each of the columns is cast up.

But this table does not include the goods which are annually shipped in great quantities to Pennsylvania from Scotland and Ireland, among which is a great quantity of linen.

The Value of the Goods annually shipped from England to Pennsylvania.									
The Year, from one Christmas to another.	Foreign Goods for which the duty has already been paid, and which therefore only require receipts.			English manufactured Goods.			The Sums of these two preceding columns added together.		
	<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>	<i>l.</i>	<i>s.</i>	<i>d.</i>
1723	5199	13	5	10793	5	1	15992	19	4
1724	9373	15	8	20951	0	5	30324	16	1
1725	10301	12	6	31508	1	8	42209	14	2
1726	9371	11	6	28263	6	2	37634	17	8
1727	10243	0	7	21736	10	0	31979	10	7
1728	14073	13	3	23405	6	2	37478	19	11
1729	12948	8	5	16851	2	5	29799	10	10
1730	15660	10	11	32931	16	6	48592	7	5
1731	11838	17	4	32421	18	9	44260	16	1
1732	15240	14	4	26457	19	3	41698	13	7
1733	13187	0	8	27378	7	5	40585	8	1
1734	19648	15	9	34743	12	1	54392	7	10
1735	18078	4	3	30726	7	1	48804	11	4
1736	23456	15	11	38057	2	5	61513	18	4
1737	14517	4	3	42173	2	4	56690	6	7
1738	20320	19	3	41129	5	0	61450	4	3
1739	9041	4	5	45411	7	6	54452	11	11
1740	10280	2	0	46471	12	9	56751	14	9
1741	12977	18	10	78032	13	1	91010	11	11
1742	14458	6	3	60836	17	1	75295	3	4
1743	19220	1	6	60120	4	10	79340	6	4
1744	14681	8	4	47595	18	2	62214	6	6
1745	13043	8	8	41237	2	3	54280	10	11
1746	18103	12	7	55595	19	7	73699	12	2
1747	8585	14	11	73819	2	8	82404	17	7
Total	343,789	16	0	969,049	1	6	1,312,838	17	6

The whole extent of the Philadelphia trade may be comprehended from the number of ships which annually arrive at and fail from this town. I intend to insert here a table of a few years, which I have taken from the gazettes of the town. The ships coming and going in one year, are to be reckoned from the twenty-fifth of March of that year to the twenty-fifth of March of the next.

The Year.	Ships arrived.			Ships failed.		
1735.	-	-	-	199	-	212
1740.	-	-	-	307	-	208
1741.	-	-	-	292	-	309
1744.	-	-	-	229	-	271
1745.	-	-	-	280	-	301
1746.	-	-	-	273	-	293

But it is much to be feared that the trade of Philadelphia, and of all the English colonies, will rather decrease than increase, in case no provision is made to prevent it. I shall hereafter plainly shew upon what foundation this decrease of trade is likely to take place.

The

The town not only furnishes most of the inhabitants of Pennsylvania with the goods which they want, but numbers of the inhabitants of New Jersey come every day and carry on a great trade.

The town has two great fairs every year ; one in May, and the other in November, both on the sixteenth days of those two months. But besides these fairs, there are every week two market days, viz. Wednesday and Saturday. On those days the country people in Pennsylvania and New Jersey bring to town a quantity of victuals, and other productions of the country, and this is a great advantage to the town. It is therefore to be wished that the like regulation might be made in our Swedish towns. You are sure to meet with every produce of the season, which the country affords, on the market-days. But on other days they are in vain sought for.

Provisions are always to be got fresh here, and for that reason most of the inhabitants never buy more at a time than what will be sufficient till the next market-day. In summer there is a market almost every day ; for the victuals do not keep well in the great heat. There are two places in the town where these markets are kept ; but that near the court-house is the principal. It begins about four or five o'clock in the morning, and ends about nine o'clock in the forenoon.

The town is not enclosed, and has no other custom-house than the great one for the ships.

The governor of the whole province lives here ; and though he is nominated by the heirs of Pen, yet he cannot take that office without being confirmed by the King of England.

The quakers of almost all parts of North America, have their great assembly here once a year.

In 1743, a society for the advancement of the sciences was erected here. Its objects would have been the curiosities of the three kingdoms, of nature, mathematics, physics, chemistry, œconomy, and manufactures. But the war, which ensued immediately, stopped all designs of this nature, and since that time, nothing has been done towards establishing any thing of this kind.

The declination of the needle was here observed on the thirtieth of October 1750, old style, to be five degrees and forty-five minutes west. It was examined by the new meridian, which was drawn at Philadelphia in the autumn of the same year, and extended a mile in length. By experience it appears, that this declination lessens about a degree in twenty years' time.

The greatest difference in the rising and falling of the barometer is, according to the observations made for several years together by Mr. James Logan, found at 28" 59 and 30" 78.

Here are three printers ; and every week two English, and one German newspaper is printed.

In 1732, on the fifth of September, old style, a little earthquake was felt here about noon, and at the same time at Boston in New England, and at Montreal in Canada, which places are above sixty Swedish miles asunder.

In November 1737, the well known Prince from Mount Lebanon, Sheich Sidi, came to Philadelphia, on his travels through most of the English American colonies. And in the same year a second earthquake was felt about eleven o'clock at night, on the seventh of December. But it did not continue above half a minute, and yet it was felt, according to the accounts of the gazettes, at the same hour in Newcastle, New York, New London, Boston, and other towns of New England. It had therefore likewise reached several miles.

The Count Sinzendorf * arrived here in the December of the year 1741, and continued till the next spring. His uncommon behaviour persuaded many Englishmen of rank, that he was disordered in his head.

I have not been able to find the exact number of the inhabitants of Philadelphia. In the year 1746, they were reckoned above ten thousand, and since that time their number is incredibly increased. Neither can it be made out from the bills of mortality, since they are not kept regularly in all the churches. I shall, however, mention some of those which appeared either in the gazettes or in bills printed on purpose.

Year.	Dead.	Year.	Dead.	Year.	Dead.
1730.	227	1741.	345	1745.	420
1738.	250	1742.	409	1748.	672
1739.	350	1743.	425	1749.	758
1740.	290	1744.	410	1750.	716

From these bills of mortality it also appears, that the diseases which are the most fatal, are consumptions, fevers, convulsions, pleurifies, hæmorrhages, and dropies.

The number of those that are born cannot be determined, since in many churches no order is observed with regard to this affair. The Quakers, who are the most numerous in this town, never baptize their children, though they take a pretty exact account of all who are born among them.

It is likewise impossible to guess at the number of inhabitants from the dead, because the town gets such great supplies annually from other countries. In the summer of the year 1749, near twelve thousand Germans came over to Philadelphia, many of whom staid in that town. In the same year the houses in Philadelphia were counted, and found to be two thousand and seventy-six in number.

The town is now quite filled with inhabitants, which in regard to their country, religion, and trade, are very different from each other. You meet with excellent masters in all trades, and many things are made here full as well as in England. Yet no manufactures, especially for making fine cloth, are established. Perhaps the reason is, that it can be got with so little difficulty from England, and that the breed of sheep which is brought over, degenerates in process of time, and affords but a coarse wool.

Here is great plenty of provisions, and their prices are very moderate. There are no examples of an extraordinary dearth.

Every one who acknowledges God to be the creator, preserver, and ruler of all things, and teaches or undertakes nothing against the state, or against the common peace, is at liberty to settle, stay, and carry on his trade here, be his religious principles ever so strange. No one is here molested on account of the erroneous principles of the doctrine which he follows, if he does not exceed the above-mentioned bounds. And he is so well secured by the laws in his person and property, and enjoys such liberties, that a citizen of Philadelphia may in a manner be said to live in his house like a king.

On a careful consideration of what I have already said, it will be easy to conceive how this city should rise so suddenly from nothing, into such grandeur and perfection, without supposing any powerful monarch's contributing to it, either by punishing the wicked, or by giving great supplies in money; and yet its fine appearance, good regulations, agreeable situation, natural advantages, trade, riches and power, are by no means inferior to those of any, even of the most ancient towns in Europe. It has

* Head of the Moravian Brethren. F.

not been necessary to force people to come and settle here ; on the contrary, foreigners of different languages have left their country, houses, property, and relations, and ventured over wide and stormy seas, in order to come hither. Other countries, which have been peopled for a long space of time, complain of the small number of their inhabitants. But Pennsylvania, which was no better than a desert in the year 1681, and hardly contained five hundred people, now vies with several kingdoms in Europe in number of inhabitants. It has received numbers of people, which other countries, to their infinite loss, have either neglected or expelled.

A wretched old wooden building, on a hill near the river somewhat north of the Wickako church, belonging to one of the Sons of Sven, of whom, as before mentioned, the ground was bought for building Philadelphia upon, is preserved on purpose, as a memorial of the poor state of that place before the town was built on it. Its antiquity gives it a kind of superiority over all the other buildings in town, though in itself the worst of all. This hut was inhabited, whilst as yet stags, deers, elks, and beavers, at broad day-light, lived in the future streets, church-yards, and market-places of Philadelphia. The noise of a spinning wheel was heard in this house, before the manufactures now established were thought of, or Philadelphia built. But with all these advantages, this house is ready to fall down, and, in a few years to come, it will be as difficult to find the place where it stood, as it was unlikely at the time of its erection, that one of the greatest towns in America should in a short time stand close up to it.

Sept. 7th. Mr. Peter Cock, a merchant of this town, assured me that he had last week himself been a spectator of a snake's swallowing a little bird. This bird, which from its cry has the name of cat-bird, (*muscicapa carolinensis*, Linn.) flew from one branch of a tree to another, and was making a doleful tune. At the bottom of the tree, but at a fathom's distance from the stem, lay one of the great black snakes, with its head continually upright, pointing towards the bird, which was always fluttering about, and now and then settling on the branches. At first it only kept in the topmost branches, but by degrees it came lower down, and even flew upon the ground, and hopped to the place where the snake lay, which immediately opened its mouth, caught the bird, and swallowed it ; but it had scarce finished its repast before Mr. Cock came up and killed it. I was afterwards told that this kind of snakes was frequently observed to pursue little birds in this manner. It is already well known that the rattle-snake does the same.

As I walked out into the fields I found several European and even Swedish plants growing there. But those which are peculiar to America, are much more numerous.

The Virginian maple grows in plenty on the shores of the Delaware. The English in this country call it either buttonwood, or waterbeech, which latter name is most usual. The Swedes call it wattenbok, or wasbok. It is Linnæus's *platanus occidentalis*. See Catesby's Nat. Hist. of Carolina, vol. i. p. 56. t. 56. It grows for the greatest part in low places, but especially on the edge of rivers and brooks. But these trees are easily transplanted to more dry places, if they be only filled with good soil ; and as their leaves are large, and their foliage thick, they are planted about the houses and in gardens, to afford a pleasant shade in the hot season. Some of the Swedes had boxes, pails, and the like, made of the bark of this tree by the native Americans. They say that those people, whilst they were yet settled here, made little dishes of this bark for gathering whortleberries. This tree likewise grows in marshes, or in swampy fields, where ash and red maple commonly grow. They are frequently as tall and thick.

thick as the best of our fir trees. The seed stays on them till spring, but in the middle of April the pods open and shed the seeds. Query, Whether they are not ripe before that time, and consequently sooner fit for sowing? This American maple is remarkable for its quick growth, in which it exceeds all other trees. There are such numbers of them on the low meadows between Philadelphia and the ferry at Gloucester, on both sides of the road, that in summer time you go as it were through a shady walk. In that part of Philadelphia which is near the Swedish church, some great trees of this kind stand on the banks of the river. In the year 1750, on the 15th of May, I saw the buds still on them; and in the year 1749 they began to flower on the eighth of that month. Several trees of this sort are planted at Chelsea, near London, and they now, in point of height, vie with the tallest oak.

Sept. 18th. In the morning I went with the Swedish painter, Mr. Hesselius, to the country seat of Mr. Bartram, which is about four English miles to the south of Philadelphia, at some distance from the high road to Maryland, Virginia, and Carolina. I had therefore the first opportunity here of getting an exact knowledge of the state of the country, which was a plain covered with all kinds of trees with deciduous leaves. The ground was sandy, mixed with clay; but the sand seemed to be in greater quantity. In some parts the wood was cut down, and we saw the habitations of some country people, whose corn-fields and plantations were round their farm-houses. The wood was full of mulberry-trees, walnut-trees of several kinds, chestnut-trees, sassafras, and the like. Several sorts of wild vines clasped their tendrils round, and climbed up to the summits of the highest trees; and in other places they twined round the enclosures, so thick, that the latter almost sunk down under their weight. The persimmon, or *diospyros Virginiana*, Linn. sp. pl. p. 1510, grew in the marshy fields and about springs. Its little apples looked very well already, but are not fit for eating, before the frost has affected them, and then they have a very fine taste. Hesselius gathered some of them, and desired my servant to taste of the fruits of the land; but this poor credulous fellow had hardly bit into them, when he felt the qualities they have before the frost has penetrated them. For they contracted his mouth so that he could hardly speak, and had a very disagreeable taste. This disgusted him so much that he was with difficulty persuaded to taste of it during the whole of our stay in America, notwithstanding it loses all its acidity, and acquires an agreeable flavour in autumn and towards the beginning of winter. For the fellow always imagined, that though he should eat them ever so late in the year, they would still retain the same disagreeable taste.

To satisfy the curiosity of those who are willing to know how the woods look in this country, and whether or no the trees in them are the same with those found in our forests, I here insert a small catalogue of those which grow spontaneously in the woods which are nearest to Philadelphia. But I exclude such shrubs as do not attain any considerable height. I shall put that tree first in order, which is most plentiful, and so on with the rest, and therefore trees which I have found but single, though near the town, will be last.

1. *Quercus alba*, the white oak, in good ground.
2. *Quercus rubra*, or the black oak.
3. *Quercus Hispanica*, the Spanish oak, a variety of the preceding.
4. *Juglans alba*, hiccory, a kind of walnut tree, of which three or four varieties are to be met with.
5. *Rubus occidentalis*, or American blackberry shrub.

6. *Acer rubrum*, the maple tree with red flowers, in swamps.
7. *Rhus glabra*, the smooth leaved sumach, in the woods, on high glades, and old corn fields.
8. *Vitis labrusca* and *Vulpina*, vines of several kinds.
9. *Sambucus Canadensis*, American elder tree, along the hedges and on glades.
10. *Quercus phellos*, the swamp oak, in morasses.
11. *Azalea lutea*, the American upright honey-suckle, in the woods in dry places.
12. *Cratægus Crus galli*, the Virginian azarole, in woods.
13. *Vaccinium* ———, a species of whortleberry shrub.
14. *Quercus prinus*, the chestnut oak, in good ground.
15. *Cornus florida*, the cornelian cherry, in all kinds of ground.
16. *Liriodendron Tulipifera*, the tulip tree, in every kind of soil.
17. *Prunus Virginiana*, the wild cherry tree.
18. *Vaccinium* ———, a frutex whortleberry, in good ground.
19. *Prinos verticillatus*, the winterberry tree, in swamps.
20. *Platanus occidentalis*, the water-beech.
21. *Nyssa aquatica*, the tupelo tree, on fields and mountains.*
22. *Liquidambar styraciflua*, sweet gum tree, near springs.
23. *Betula Alnus*, alder, a variety of the Swedish; it was here but a shrub.
24. *Fagus castanea*, the chestnut tree, on corn-fields, pastures, and in little woods.
25. *Juglans nigra*, the black walnut tree, in the same place with the preceding tree.
26. *Rhus radicans*, the twining sumach, climbed along the trees.
27. *Acer Negundo*, the ash-leaved maple, in morasses and swampy places.
28. *Prunus domestica*, the wild plum tree.
29. *Ulmus Americana*, the white elm.
30. *Prunus spinosa*, sloe shrub, in low places.
31. *Laurus sassafras*, the sassafras tree, in a loose soil mixed with sand.
32. *Ribes nigrum*, the currant tree, grew in low places and in marshes.
33. *Fraxinus excelsior*, the ash tree, in low places.
34. *Smilax laurifolia*, the rough bind weed with the bay leaf, in woods and on pales or enclosures.
35. *Kalmia latifolia*, the American dwarf laurel, on the northern side of mountains.
36. *Morus rubra*, the mulberry tree, on fields, hills, and near the houses.
37. *Rhus vernix*, the poisonous sumach, in wet places.
38. *Quercus rubra*, the red oak, but a peculiar variety.
39. *Hamamelis virginica*, the witch hazel.
40. *Diopspyros Virginiana*, the persimmon.
41. *Pyrus coronaria*, the anchor tree.
42. *Juniperus Virginiana*, the red juniper, in a dry poor soil.
43. *Laurus æstivalis*, spice wood, in a wet soil.
44. *Carpinus ostrya*, a species of horn beam, in a good soil.
45. *Carpinus betulus*, a horn beam, in the same kind of soil with the former.
46. *Fagus sylvatica*, the beech, likewise in good soil.

* Dr. Linnæus mentions only one species of *Nyssa*, namely *Nyssa aquatica*; Mr. Kalm does not mention the name of the species, but if his is not a different species, it must at least be a variety, since he says it grows on hills, whereas the *aquatica* grows in the water. F.

47. *Juglans* ———, a species of walnut tree, on hills near rivers*, called by the Swedes *butternultræ*.

48. *Pinus Americana*, Pensylvanian fir tree, on the north side of mountains, and in vallies†.

49. *Betula lenta*, a species of birch, on the banks of rivers.

50. *Cephalantus occidentalis*, button wood, in wet places.

51. *Pinus tæda*, the New Jersey fir tree, on dry sandy heaths.

52. *Cercis Canadensis*, the fallad tree, in a good soil.

53. *Robinia pseudacacia*, the locust tree, on the corn-fields.

54. *Magnolia glauca*, the laurel-leaved tulip tree, in marshy soil.

55. *Tilia Americana*, the lime tree, in a good soil.

56. *Gleditsia triacanthos*, the honey locust tree, or three-thorned acacia, in the same soil.

57. *Celtis occidentalis*, the nettle tree, in the fields.

58. *Annona muricata*, the custard apple, in a fruitful soil.

We visited several Swedes, who were settled here, and in very good circumstances. One of them (Andrew Rambo) has a fine house built of stone, two stories high, and a great orchard near it. We were every where well received, and stayed over night with the above-mentioned countryman. We saw no other marks of autumn than that several fruits of this season were already ripe. For besides this, all the trees were yet as green, and the ground still as much covered with flowers, as in our summer. Thousands of frogs croaked all the night long in the marshes and brooks. The locusts and grasshoppers made likewise such a great noise, that it was hardly possible for one person to understand another. The trees too were full of all sorts of birds, which by the variety of their fine plumage delighted the eye, while the infinite variety of their tunes were continually re-echoed.

The orchards, along which we passed to-day, were only enclosed by hurdles. But they contained all kinds of fine fruit. We wondered at first very much when our leader leaped over the hedge into the orchards, and gathered some agreeable fruit for us. But our astonishment was still greater, when we saw that the people in the garden were so little concerned at it, as not even to look at us. But our companion told us, that the people here were not so exact in regard to a few fruits, as they are in other countries where the soil is not so fruitful in them. We afterwards found very frequently that the country people in Sweden and Finland guarded their turnips more carefully, than the people here do the most exquisite fruits.

Sept. 19th. As I walked this morning into the fields, I observed that a copious dew was fallen; for the grass was as wet as if it had rained. The leaves of the plants and trees had contracted so much moisture that the drops ran down. I found on this occasion that the dew was not only on the superior, but likewise on the inferior side of the leaves. I therefore carefully considered many leaves both of trees and of other plants; both of those which are more above, and of those which are nearer to the ground. But I found in all of them, that both sides of the leaves were equally bedewed, except those of the *verbascum thapsus*, or great mullein, which, though their superior side was pretty well covered with the dew, yet their inferior had but a little.

* Quere. Is this the *Juglans baccata* of Linnæus? F.

† This species is not to be met with in Linn. spec. plant. F.

Every countryman, even a common peasant, has commonly an orchard near his house, in which all sorts of fruit, such as peaches, apples, pears, cherries, and others, are in plenty. The peaches were now almost ripe. They are rare in Europe, particularly in Sweden; for in that country hardly any people besides the rich taste them. But here every countryman had an orchard full of peach trees, which were covered with such quantities of fruit, that we could scarcely walk in the orchard without treading upon those peaches which were fallen off; many of which were usually left on the ground, and only part of them sold in town, and the rest was consumed by the family and strangers. Nay this fine fruit was frequently given to the swine.

This fruit is however sometimes kept for winter use, and prepared in the following manner. The fruit is cut into four parts, the stone thrown away, and the fruit put upon a thread, on which they are exposed to the sunshine in the open air, till they are sufficiently dry. They are then put into a vessel for winter. But this manner of drying them is not very good, because the rain of this season very easily spoils and putrifies them, whilst they hang in the open air. For this reason a different method is followed by others, which is by far the most eligible. The peaches are as before cut into four parts, are then either put upon a thread, or laid upon a board, and so hung up in the air when the sun shines. Being dried in some measure, or having lost their juice by this means, they are put into an oven, out of which the bread has but just been taken, and are left in it for a while. But they are soon taken out and brought into the fresh air; and after that they are again put into the oven, and this is repeated several times, till they are as dry as they ought to be. For if they were dried up at once in the oven, they would shrivel up too much, and lose part of their flavour. They are then put up and kept for the winter. They are either baked into tarts and pyes, or boiled and prepared as dried apples and pears are in Sweden. Several people here dry and preserve their apples in the same manner as their peaches.

The peach trees were, as I am told, first planted here by the Europeans. But at present they succeed very well, and require even less care than our apple and pear trees.

The orchards have seldom other fruit than apples and peaches. Pear trees are scarce in this province. They have cherry trees in the orchards, but commonly on the sides of them towards the house, or along the enclosures. Mulberry trees are planted on some hillocks near the house, and sometimes even in the court-yards of the house. The black walnut trees, or *Juglans nigra*, grow partly on hills, and in fields near the farm-houses, and partly along the enclosures; but most commonly in the forests. No other trees of this kind are made use of here. The chestnuts are left in the fields; here and there is one in a dry field, or in a wood.

The *Hibiscus esculentus*, or Okra*, is a plant which grows wild in the West Indies, but is planted in the gardens here. The fruit, which is a long pod, is cut whilst it is green, and boiled in soups, which thereby become as thick as pulse. This dish is reckoned a dainty by some people, and especially by the negroes.

Capficum annuum, or Guinea pepper, is likewise planted in gardens. When the fruit is ripe it is almost entirely red, it is put to a roasted or boiled piece of meat, a little of it being strewed upon it, or mixed with the broth. Besides this, cucumbers are pickled with it. Or the pods are pounded whilst they are yet tender, and being mixed with salt are preserved in a bottle; and this spice is strewed over roasted or boiled meat, or fried fish, and gives them a very fine taste. But the fruit by itself is as biting as common pepper.

* In Miller's Gardener's Dictionary, it is called *Ketmia Indica folio ficus, fructu pentagono, recurvo, esculento, graciliori, et longiori*.

This country contains many species of the plant which Dr. Linnæus calls *Rhus*, and the most common is the *Rhus foliis pinnatis ferratis lanceolatis retrinque nudis*, or the *Rhus glabra*. The English call this plant Sumach. But the Swedes here have no particular name for it, and therefore make use of the English name. Its berries or fruits are red. They are made use of for dying, and afford a colour like their own. This tree is like a weed in this country, for if a corn-field is left uncultivated for some few years together, it grows on it in plenty, since the berries are spread every where by the birds. And when the ground is to be ploughed, the roots stop the plough very much. The fruit stays on the shrub during the whole winter. But the leaves drop very early in autumn, after they are turned reddish, like those of our Swedish mountain ash. The branches boiled with the berries afford a black ink like tincture. The boys eat the berries, there being no danger of falling sick after the repast; but they are very four. They seldom grow above three yards high. On cutting the stem, it appears that it contains nothing but pith. I have cut several in this manner, and found that some were ten years old; but that most of them were above one year old. When the cut is made, a yellow juice comes out between the bark and the wood. One or two of the most outward circles are white, but the innermost are of a yellowish green. It is easy to distinguish them one from another. They contain a very plentiful pith, the diameter of which is frequently half an inch, and sometimes more. It is brown, and so loose that it is easily pushed out by a little stick, in the same manner as the pith of the elder tree, raspberry, and blackberry, bushes. This sumach grows near the enclosures, round the corn-fields, but especially on fallow ground. The wood seemed to burn well, and made no great crackling in the fire.

Sept. 20. In the morning we walked in the fields and woods near the town, partly for gathering seeds, and partly for gathering plants for my herbal, which was our principal occupation; and in the autumn of this year, we sent part of our collection to England and Sweden.

A species of *Rhus*, which was frequent in the marshes here, was called the poison tree by both English and Swedes. Some of the former gave it the name of swamp-sumach, and my countrymen gave it the same name. Dr. Linnæus in his botanical works calls it *Rhus Vernix*. Sp. pl. i. 380. Flor. Virgin. 45. An incision being made into the tree, a whitish yellow juice, which has a nauseous smell, comes out between the bark and the wood. This tree is not known for its good qualities, but greatly so for the effect of its poison, which though it is noxious to some people, yet does not in the least affect others. And therefore one person can handle the tree as he pleases, cut it, peel off its bark, rub it or the wood upon his hands, smell at it, spread the juice upon his skin, and make more experiments, with no inconvenience to himself; another person, on the contrary, dares not meddle with the tree while its wood is fresh, nor can he venture to touch a hand which has handled it, nor even to expose himself to the smoke of a fire which is made with this wood, without soon feeling its bad effects; for the face, the hands, and frequently the whole body, swells excessively, and is affected with a very acute pain. Sometimes bladders or blisters arise in great plenty, and make the sick person look as if he was infected by a leprosy. In some people the external thin skin, or cuticle, peels off in a few days, as is the case when a person has scalded or burnt any part of his body. Nay, the nature of some persons will not even allow them to approach the place where the tree grows, or to expose themselves to the wind, when it carries the effluvia or exhalations of this tree with it, without letting them feel the inconvenience of the swelling, which I have just now described. Their eyes are sometimes shut up for one, or two and more days together, by the swelling. I know two brothers,
one

one of whom could without danger handle this tree in what manner he pleased, whereas the other could not come near it without swelling. A person sometimes does not know that he has touched this poisonous plant, or that he has been near it, before his face and hands shew it by their swelling. I have known old people who were more afraid of this tree than of a viper; and I was acquainted with a person who, merely by the noxious exhalations of it, was swelled to such a degree that he was as stiff as a log of wood, and was turned about in his bed.

On relating, in the winter of the year 1750, the poisonous qualities of the swamp sumach to my Yungstroem, he only laughed, and looked upon the whole as a fable, in which opinion he was confirmed by his having often handled the tree the autumn before, cut many branches of it, which he had carried for a good while in his hand, in order to preserve its seeds, and put many into the herbals, and all this without feeling the least inconvenience. He would therefore, being a kind of philosopher in his own way, take nothing for granted of which he had no sufficient proofs, especially as he had his own experience in the summer of the year 1749, to support the contrary opinion. But in the next summer his system of philosophy was overturned, for his hands swelled, and he felt a violent pain and itching in his eyes, as soon as he touched the tree, and this inconvenience not only attended him when he meddled with this kind of sumach, but even when he had any thing to do with the rhus radicans, or that species of sumach which climbs along the trees, and is not by far so poisonous as the former. By this adventure he was so convinced of the power of the poison tree, that I could not easily persuade him to gather more seeds of it for me. But he not only felt the noxious effects of it in summer, when he was very hot, but even in winter, when both he and the wood were cold. Hence it appears, that though a person be secured against the power of this poison for some time, yet, that in length of time, he may be affected with it, as well as people of a weaker constitution.

I have likewise tried experiments of every kind with the poison tree on myself. I have spread its juice upon my hands, cut and broke its branches, peeled off its bark, and rubbed my hands with it, smelt at it, carried pieces of it in my bare hands, and repeated all this frequently without feeling the baneful effects so commonly annexed to it; but I however once experienced that the poison of the sumach was not entirely without effect upon me. On a hot day in summer, as I was in some degree of perspiration, I cut a branch of the tree, and carried it in my hand for about half an hour together, and smelt at it now and then. I felt no effects from it till in the evening; but next morning I awoke with a violent itching of my eye-lids, and the parts thereabouts; and this was so painful, that I could hardly keep my hands from it. It ceased after I had washed my eyes for a while with very cold water; but my eye-lids were very stiff all that day; at night the itching returned; and in the morning as I awoke, I felt it as ill as the morning before, and I used the same remedy against it. However, it continued almost for a whole week together, and my eyes were very red, and my eye-lids were with difficulty moved during all that time. My pain ceased entirely afterwards. About the same time, I had spread the juice of the tree very thick upon my hand. Three days after they occasioned blisters, which soon went off without affecting me much. I have not experienced any thing more of the effects of this plant, nor had I any desire so to do. However, I found that it could not exert its power upon me when I was not perspiring.

I have never heard that the poison of this sumach has been mortal; but the pain ceases after a few days duration. The natives formerly made their flutes of this tree, because it has a great deal of pith. Some people assured me, that a person suffering

from its noisome exhalations, would easily recover by spreading a mixture of the wood burnt to charcoal, and hog's lard, upon the swelled parts. Some asserted that they had really tried this remedy. In some places this tree is rooted out, on purpose that its poison may not affect the workmen.

I received, as a present, several curiosities belonging to the mineral kingdom, which were collected in the country. The following were those which were most worth attention. The first was a white and quite transparent chrysal*. Many of this kind are found in Pennsylvania, in several kinds of stone, especially in a pale-grey limestone. The pieces are of the thickness and length of the little finger, and commonly as transparent as possible. But I have likewise got crystals here, of the length of a foot, and of the thickness of a middle-sized man's leg. They were not so transparent as the former.

The cubic pyrites of Bishop Browallius†, was of a very regular texture; but its cubes were different in size, for in some of the cubes the planes of the sides only amounted to a quarter of an inch, but in the biggest cubes they were full two inches. Some were exceedingly glittering, so that it was very easy to be perceived that they consisted of sulphureous pyrites; but in some, one or two sides only glittered so well, and the others were dark-brown. Yet most of these marcasites had this same colour on all the sides. On breaking them they shewed the pure pyrites. They are found near Lancaster in this province, and sometimes lie quite above the ground; but commonly they are found at the depth of eight feet or more from the surface of the ground, on digging wells and the like. Mr. Hesselius had several pieces of this kind of stone, which he made use of in his work. He first burnt them, then pounded or ground them to a powder, and at last rubbed them still finer in the usual way; and this afforded him a fine reddish-brown colour.

Few black pebbles are found in this province, which on the other hand, yields many kinds of marble, especially a white one, with pale-grey bluish spots, which is found in a quarry at the distance of a few English miles from Philadelphia, and is very good for working, though it is not one of the finest kind of marbles. They make many tombstones and tables, encase chimneys and doors, floors of marble flags in the rooms, and the like, of this kind of marble. A quantity of this commodity is shipped to different parts of America.

Muscovy glass‡ is found in many places hereabouts, and some pieces of it are pretty large, and as fine as those which are brought from Russia. I have seen some of them which were a foot and more in length; and I have several in my collection that are nearly nine inches square. The Swedes on their first arrival here made their windows of this native glass.

A pale grey fine limestone§, of a compact texture, lies in many places hereabouts, and affords a fine lime. Some pieces of it are so full of fine transparent crystals, that

* Nitrum crystallus montana, Linn. Syst. Nat. 3. p. 84. Crystallus hexagona pellucida non colorata, Wallerius's Mineralogy, p. 100. Crystallus montana, colourless crystal. Forster's Introd. to Mineralogy, p. 13.

† Pyrites crystallinus, Linn. Syst. Nat. 3. p. 113. Marchasitzæ hexaëdricæ tessellares. Wallerius's Mineralogy, p. 211. Marcasitzæ, vel crystalli pyritacei, Marcasites. Forster's Introd. to Mineralogy, p. 39.

‡ Mica membranacea, Linn. Syst. Nat. 3. p. 58. Mica membranacea pellucidissima flexilis alba. Wallerius's Min. p. 120. Russian glass, Muscovy glass, isinglass, Vitrum ruthenicum, Vitrum Mariæ. Forster's Introd. to Mineralogy, p. 18.

§ Marmor rude, Linn. Syst. Nat. 3. p. 41. Calcareus particulis scintillantibus, Wall. Min. p. 39. Calcareus scintillans, glittering limestone. Forster's Introd. to Mineralogy, p. 9.

almost

almost half of the stone consists of nothing else. But besides this limestone, they make lime near the sea-shore from oyster shells, and bring it to town in winter, which is said to be worse for masonry, but better for white-washing than that which is got from the limestone.

Coals have not yet been found in Pennsylvania, but people pretend to have seen them higher up in the country among the natives. Many people however agree that they are met with in great quantity more to the north, near Cape Breton*.

The ladies make wine from some of the fruits of the land. They principally take white and red currants for that purpose, since the shrubs of this kind are very plentiful in the gardens, and succeed very well. An old sailor, who had frequently been in Newfoundland, told me that red currants grew wild in that country in great quantity. They likewise make a wine of strawberries, which grow in great plenty in the woods, but are sourer than the Swedish ones. The American blackberries, or *rubus occidentalis*, are likewise made use of for this purpose, for they grow every where about the fields, almost as abundantly as thistles in Sweden, and have a very agreeable taste. In Maryland a wine is made of the wild grapes, which grow in the woods of that province. Raspberries and cherries which are planted on purpose, and taken great care of, likewise afford a very fine wine. It is unnecessary to give an account of the manner of making the currant wine, for in Sweden this art is in higher perfection than in North America.

Sept. 21st. The common privet, or *ligustrum vulgare*, Linn. grows among the bushes in thickets and woods; but I cannot determine whether it belongs to the indigenous plants, or to those which the English have introduced, the fruits of which the birds may have dispersed every where. The enclosures and pales are generally made here of wooden planks and posts; but a few good œconomists, having already thought of sparing the woods for future times, have begun to plant quick-hedges round their fields; and to this purpose they take the above-mentioned privet, which they plant in a little bank, which is thrown up for it. The soil every where hereabouts is a clay mixed with sand, and of course very loose. The privet-hedges however, are only adapted to the tameness of the cattle and other animals here; for the hogs all have a triangular yoke about their necks, and the other cattle are not very unruly. But in such places where the cattle break through the enclosures, hedges of this kind would make but a poor defence. The people who live in the neighbourhood of Philadelphia, are obliged to keep their hogs enclosed.

In the afternoon, I rode with Mr. Cock to his country seat, about nine miles from the town, to the north-west.

The country on both sides of the road was covered with a great forest. The trees were all with annual leaves, and I did not see a single fir or pine. Most of the trees were different sorts of oak; but we likewise saw chestnut, walnut, locust, and apple trees, with hickory, blackberry bushes, and the like. The ground ceased to be so even as it was before, and began to look more like the English ground, diversified with hills and vallies. We found neither mountains nor great stones, and the wood was so much thinned, and the ground so uniformly even, that we could see a great way between the trees, under which we rode without any inconvenience, for there

* This has been confirmed, since Cape Breton is in the hands of the English; and it is reported that the strata of coals run through the whole isle, and some basset out to-day near the sea-shore, so that this isle will afford immense treasures of coals, when the government will find it convenient to have them dug for the benefit of the nation. F.

were no bushes to stop us. In some places, where the soil was thrown up, we saw some little stones of that kind of which the houses here are so generally built. I intend to describe them in the sequel.

As we went on in the wood, we continually saw, at moderate distances, little fields which had been cleared of the wood. Each of these was a farm. These farms were commonly very pretty, and a walk of trees frequently led from them to the high-road. The houses were all built of brick, or of the stone which is here commonly met with. Every countryman, even though he were the poorest peasant, had an orchard with apples, peaches, chestnuts, walnuts, cherries, quinces, and such fruits, and sometimes we saw the vines climbing along them. The vallies were frequently provided with little brooks which contained a crystal stream. The corn, on the sides of the road, was almost all mown, and no other grain besides maize and buckwheat was standing. The former was to be met with near each farm, in greater or lesser quantities; it grew very well and to a great length, the stalks being from six to ten feet high, and covered with fine green leaves. Buckwheat likewise was not very uncommon, and in some places the people were beginning to reap it. I intend, in the sequel, to be more particular about the qualities and use of these kinds of corn.

After a ride of six English miles, we came to Germantown; this town has only one street, but is near two English miles long. It is for the greatest part inhabited by Germans, who from time to time come from their country to North America, and settle here, because they enjoy such privileges, as they are not possessed of any where else. Most of the inhabitants are manufacturers, and make almost every thing in such quantity and perfection, that in a short time this province will want very little from England, its mother country. Most of the houses were built of the stone which is mixed with glimmer, and found every where towards Philadelphia, but is more scarce further on. Several houses however were made of brick. They were commonly two stories high, and sometimes higher. The roofs consisted of shingles of the white cedar wood. Their shape resembled that of the roofs in Sweden, but the angles they formed at the top were either obtuse, right angled, or acute, according as the slopes were steep or easy. They sometimes formed either the half of an octagon, or the half of a dodecagon.

Many of the roofs were made in such a manner that they could be walked upon, having a balustrade round them. Many of the upper stories had balconies before them, from whence the people had a prospect into the street. The windows, even those in the third story, had shutters. Each house had a fine garden. The town had three churches, one for the Lutherans, another for the Reformed Protestants, and the third for the Quakers. The inhabitants were so numerous, that the street was always full. The Baptists have likewise a meeting-house.

Sept. 22d. After I had been at church, I employed the remainder of the day in conversing with the most considerable people in town, who had lived here for a long while, and I enquired into the curiosities hereabouts.

Mr. Cock had a fine spring near his house; it came from a sandy hill, and afforded water enough constantly to fill a little brook. Just above this spring Mr. Cock had erected a building from those above-mentioned glittering stones, into which were put many jugs and other earthen vessels full of milk: for it kept very well in cold water during the great heat with which the summer is attended here.

I afterwards met with many houses which were situated like this, on springs, and therefore were destined to keep the meat and milk fresh.

Almost all the enclosures round the corn-fields and meadows hereabouts, were made

of planks fastened in a horizontal direction. I only perceived a hedge of privet in one single place. The enclosures were not made like ours; for the people here take posts from four to six feet in height, and make two or three holes into them, so that there was a distance of two feet and above between them. Such a post does the same service as two, and sometimes three poles are scarce sufficient. The posts were fastened in the ground, at two or three fathoms distance from each other, and the holes in them kept up the planks, which were nine inches, and sometimes a foot broad, and lay above each other from one post to the next. Such an enclosure therefore looked at a distance like the hurdles in which we enclose the sheep at night in Sweden. They were really no closer than hurdles, being only destined to keep out the greater animals, such as cows and horses. The hogs are kept near the farm-houses every where about Philadelphia, and therefore this enclosure does not need to be made closer on their account. Chestnut-trees were commonly made use of for this purpose, because this wood keeps longest against putrefaction; and an enclosure made of it can stand for thirty years together. But where no chestnut wood was to be got, the white and likewise black oaks were taken for that purpose. Of all kinds of wood, that of the red cedar holds out the longest. The greatest quantity of it is bought up here; for near Philadelphia it is not plentiful enough to be made use of for enclosures; however, there are many enclosures near the town made of this wood.

The best wood for fuel, in every body's opinion, is the hiccory, or a species of walnut; for it heats well, but is not good for enclosures, since it cannot well withstand putrefaction when it is in the open air. The white and black oaks are next in goodness for fuel. The woods with which Philadelphia is surrounded, would lead one to conclude, that fuel must be cheap there. But it is far from being so, because the great and high forest near the town is the property of some people of quality and fortune, who do not regard the money which they could make of them. They do not fell so much as they require for their own use, and much less would they sell it to others. But they leave the trees for times to come, expecting that wood will become much more scarce. However, they sell it to joiners, coach makers, and other artists, who pay exorbitantly for it. For a quantity of hiccory of eight feet in length, and four in depth, and the pieces being likewise four feet long, they paid at present eighteen shillings of Pennsylvanian currency. But the same quantity of oak only came to twelve shillings. The people who came at present to sell wood in the market were peasants, who lived at a great distance from the town. Every body complained that fuel, in the space of a few years, was risen in price to many times as much again as it had been; and to account for this, the following reasons were given: the town is increased to such a degree, as to be four or six times bigger and more populous than what some old people have known it to be, when they were young. Many brick-kilns have been made hereabouts, which require a great quantity of wood. The country is likewise more cultivated than it used to be, and consequently, great woods have been cut down for that purpose, and the farms built in those places likewise consume a quantity of wood. Lastly, they melt iron out of the ore, in several places about the town, and this work always goes on without interruption. For these reasons it is concluded, in future times, Philadelphia will be obliged to pay a great price for wood.

The wine of blackberries, which has a very fine taste, is made in the following manner. The juice of the blackberries is pressed out and put into a vessel, with half a gallon of this juice, an equal quantity of water is well mixed. Three pounds of brown sugar are added to this mixture, which must then stand for a while, and after that it is

fit

fit for use. Cherry wine is made in the same manner ; but care must be taken that when the juice is pressed out, the stones be not crushed, for they give the wine a bad taste.

They make brandy from peaches here, after the following method : the fruit is cut asunder, and the stones are taken out ; the pieces of fruit are then put into a vessel, where they are left for three weeks or a month, till they are quite putrid ; they are then put into a distilling vessel, and the brandy is made and afterwards distilled over again. This brandy is not good for people who have a more refined taste, but it is only for the common kind of people, such as workmen and the like.

Apples yield a brandy, when prepared in the same manner as the peaches. But for this purpose those apples are chiefly taken which fall from the tree before they are ripe.

The American night-shade, or *phytolacca decandra*, Linn. S. N. grows abundantly near the farms, on the high road, in hedges and bushes, and in several places in the fields. Whenever I came to any of these places I was sure of finding this plant in great abundance. Most of them had red berries, which grew in bunches, and looked very tempting, though they were not at all fit for eating. Some of these plants were yet in flower. In some places, such as in the hedges, and near the houses, they sometimes grow two fathoms high, but in the fields were always low ; yet I could nowhere perceive that the cattle had eaten of it. A German of this place, who was a confectioner, told me, that the dyers gathered the roots of this plant and made a fine red dye of them.

Here are several species of squirrels. The ground squirrels, or *sciurus striatus* Linn. S. N. are commonly kept in cages, because they are very pretty ; but they cannot be entirely tamed. The greater squirrels, or *sciurus cinereus*, Linn. S. N. frequently do a great deal of mischief in the plantations, but particularly destroy the maize. For they climb up the stalks, cut the ears in pieces, and eat only the loose and sweet kernel, which lies quite in the inside. They sometimes come by hundreds upon a maize-field, and then destroy the whole crop of a countryman in one night. In Maryland therefore every one is obliged annually to bring four squirrels, and their heads are given to the surveyor, to prevent deceit. In other provinces every body that kills squirrels received two-pence a-piece for them from the public, on delivering the heads. Their flesh is eaten and reckoned a dainty. The skins are sold, but are not much esteemed. Squirrels are the chief food of the rattle-snake and other snakes ; and it was a common fancy with the people hereabouts, that when the rattle-snake lay on the ground, and fixed its eyes upon a squirrel, the latter would be as it were fascinated, and that though it were on the uppermost branches of a tree, yet it would come down by degrees, till it leaped into the snake's mouth. The snake then licks the little animal several times, and makes it wet all over with its spittle, that it may go down the throat easier. It then swallows the whole squirrel at once. When the snake has made such a good meal, it lies down to rest without any concern.

The quadruped, which Dr. Linnæus, in the Memoirs of the Royal Academy of Sciences, has described by the name of *ursus cauda elongata*, and which he calls *ursus lotor*, in his *Systema Naturæ*, is here called raccoon. It is found very frequently, and destroys many chickens. It is hunted by dogs ; and when it runs upon a tree to save itself, a man climbs upon the tree after it and shakes it down to the ground, where the dogs kill it. The flesh is eaten, and is reputed to taste well. The bone of its male parts is made use of for a tobacco-stopper. The hatters purchase their skins, and make hats out of the hair, which are next in goodness to beavers. The tail is worn round the neck in winter, and therefore is likewise valuable. The raccoon is frequently the food of snakes.

Some

Some Englishmen asserted that near the river Potomack in Virginia, a great quantity of oyster-shells were to be met with, and that they themselves had seen whole mountains of them. The place where they are found is said to be about two English miles distant from the sea-shore. The proprietor of that ground burns lime out of them. This stratum of oyster-shells is two fathoms and more deep. Such quantities of shells have likewise been found in other places, especially in New York, on digging in the ground, and in one place, at the distance of some English miles from the sea, a vast quantity of oyster-shells, and of other shells, was found. Some people conjectured that the natives had formerly lived in that place, and had left the shells of the oysters which they had consumed, in such great heaps. But others could not conceive how it happened that they were thrown in such immense quantities all into one place.

Every one is of opinion that the American savages were a very good-natured people, if they were not attacked. Nobody is so strict in keeping his word as a savage. If any one of their allies come to visit them, they shew him more kindness, and greater endeavours to serve him, than he could have expected from his own countrymen. Mr. Cock gave me the following relation, as a proof of their integrity. About two years ago an English merchant travelling amongst the savages, in order to sell them necessaries, and to buy other goods, was secretly killed, without the murderer's being found out. But about a year after, the savages found out the guilty person amongst themselves. They immediately took him up, bound his hands on his back, and thus sent him with a guard to the governor at Philadelphia, and sent him word, that they could no longer acknowledge this wretch (who had been so wicked towards an Englishman) as their countryman, and therefore would have nothing more to do with him, and that they delivered him up to the governor, to be punished for his villany as the laws of England direct. This Indian was afterwards hanged at Philadelphia.

Their good natural parts are proved by the following account, which many people have given me as a true one. When they send their ambassadors to the English colonies, in order to settle things of consequence with the governor, they sit down on the ground, as soon as they come to his audience, and hear with great attention the governor's demands, which they are to make an answer to. His demands are sometimes many; yet they have only a stick in their hand, and make their marks on it with a knife, without writing any thing else down. But when they return the next day to give in their resolutions, they answer all the governor's articles in the same order in which he delivered them, without leaving one out, or changing the order; and give such accurate answers, as if they had an account of them at full length in writing.

Mr. Sleidorn related another story, which gave me great pleasure. He said he had been at New York, and had found a venerable old American savage amongst several others in an inn. This old man began to talk with Sleidorn as soon as the liquor was getting the better of his head, and boasted that he could write and read in English. Sleidorn therefore desired leave to ask a question, which the old man readily granted. Sleidorn then asked him, whether he knew who was first circumcised? and the old man immediately answered, Father Abraham; but at the same time asked leave to propose a question in his turn, which Sleidorn granted; the old man then said, who was the first quaker? Sleidorn said it was uncertain, that some took one person for it, and some another; but the cunning old fellow told him, you are mistaken, sir; Mordecai was the first quaker, for he would not take off his hat to Haman. Many of the savages, who are yet heathens, are said to have some obscure notion of the deluge. But I am convinced, from my own experience, that they are not at all acquainted with it.

I met with people here who maintained that giants had formerly lived in these parts, and the following particulars confirmed them in this opinion. A few years ago some people digging in the ground, met with a grave which contained human bones of an astonishing size. The tibia is said to have been fourteen feet long, and the os femoris to have measured as much. The teeth are likewise said to have been of a size proportioned to the rest. But more bones of this kind have not yet been found. Persons skilled in anatomy, who have seen these bones, have declared that they were human bones. One of the teeth has been sent to Hamburgh, to a person who collected natural curiosities. Among the savages, in the neighbourhood of the place where the bones were found, there is an account handed down through many generations from fathers to children, that in this neighbourhood, on the banks of a river, there lived a very tall and strong man, in ancient times, who carried the people over the river on his back, and waded in the water, though it was very deep. Every body to whom he did this service gave him some maize, some skins of animals, or the like. In fine, he got his livelihood by this means, and was, as it were, the ferryman of those who wanted to pass the river.

The soil here consists for the greatest part of sand, which is more or less mixed with clay. Both the sand and the clay are of the colour of pale bricks. To judge by appearance the ground was none of the best; and this conjecture was verified by the inhabitants of the country. When a corn-field has been obliged to bear the same kind of corn for three years together, it does not after that produce any thing at all, if it be not well manured, or fallowed for some years. Manure is very difficult to be got, and therefore people rather leave the field uncultivated. In that interval it is covered with all sorts of plants and trees; and the countryman, in the meanwhile, cultivates a piece of ground which has till then been fallow, or he chuses a part of the ground which has never been ploughed before, and he can in both cases be pretty sure of a plentiful crop. This method can here be used with great convenience; for the soil is loose, so that it can easily be ploughed, and every countryman has commonly a great deal of land for his property. The cattle here are neither housed in winter, nor tended in the fields, and for this reason they cannot gather a sufficient quantity of dung.

The cattle were originally brought from Europe. The natives have never had any, and at present, few of them care to get any. But the cattle degenerate by degrees here, and become smaller; for the cows, horses, sheep, and hogs, are all larger in England, though those which are brought over are of that breed. But the first generation decreases a little, and the third and fourth is of the same size with the cattle already common here. The climate, the soil, and the food, altogether contribute their share towards producing this change.

It is remarkable that the inhabitants of the country, commonly sooner acquire understanding, but likewise grow sooner old than the people in Europe. It is nothing uncommon to see little children giving sprightly and ready answers to questions that are proposed to them, so that they seem to have as much understanding as old men. But they do not attain to such an age as the Europeans; and it is almost an unheard of thing, that a person born in this country, should live to be eighty or ninety years of age. But I only speak of the Europeans that settled here; for the savages, or first inhabitants, frequently attained a great age, though at present such examples are uncommon, which is chiefly attributed to the great use of brandy, which the savages have learnt of the Europeans. Those who are born in Europe attain a greater age here than

than those who are born here of European parents. In the last war it plainly appeared that these new Americans were by far less hardy than the Europeans in expeditions, sieges, and long sea-voyages, and died in numbers. It is very difficult for them to use themselves to a climate different from their own. The women cease bearing children sooner than in Europe. They seldom or never have children after they are forty or forty-five years old, and some leave off in the thirtieth year of their age. I enquired into the causes of this, but no one could give me a good one. Some said it was owing to the affluence in which the people live here. Some ascribed it to the inconstancy and changeableness of the weather, and believed that there hardly was a country on earth in which the weather changes so often in a day as it does here. For if it were ever so hot, one could not be certain whether in twenty-four hours there would not be a piercing cold; nay, sometimes the weather will change five or six times a day.

The trees in this country have the same qualities as its inhabitants. For the ships which are built of American wood, are by no means equal in point of strength, to those which are built in Europe. This is what nobody attempts to contradict. When a ship, which is built here, has served eight or twelve years, it is worth little; and if one is to be met with which has been in use longer, and is yet serviceable, it is reckoned very astonishing. It is difficult to find out the causes from whence this happens. Some lay the fault to the badness of the wood; others condemn the method of building the ships, which is to make them of trees which are yet green and have had no time to dry. I believe both causes are joined, for I found oak, which at the utmost had been cut down about twelve years, and was covered by a hard bark; but upon taking off this bark, the wood below it was almost entirely rotten, and like flour, so that I could rub it into powder between my fingers. How much longer will not our European oak stand before it moulders!

At night we returned to Philadelphia.

Sept. 23d. There are no hares in this country, but some animals which are a medium between our hares and rabbits, and make a great devastation whenever they get into fields of cabbages and turnips.

Many people have not been able to find out why the North American plants, which are carried to Europe and planted there, for the greatest part flower so late, and do not get ripe fruit before the frost overtakes them, although it appears from several accounts of travels, that the winters in Pennsylvania, and more so those in New York, New England, and Canada, are full as severe as our Swedish winters, and therefore are much severer than those which are felt in England. Several men of judgment charged me for this reason to examine and enquire into this phenomenon with all possible care. But I shall, instead of an answer rather give a few remarks which I made upon the climate and upon the plants of North America, and leave my readers at liberty to draw the conclusions.

1. It is true, that the winters in Pennsylvania, and much more those in the more northern provinces, are frequently as severe as our Swedish winters, and much colder than the English ones, or those of the southern parts of Europe. For I found at Philadelphia, which is above twenty degrees more southerly than several provinces in Sweden, that the thermometer of professor Celsius fell twenty-four degrees below the freezing point in winter. Yet I was assured that the winters I spent here were none of the coldest, but only common ones, which I could likewise conclude from the Delaware's not being frozen strong enough to bear a carriage at Philadelphia during my stay, though this often happens. On considering the breadth of the river, which I have already mentioned in my description of Philadelphia, and the difference between

high and low water, which is eight English feet; it will pretty plainly appear, that a very intense frost is required to cover the Delaware with such thick ice.

2. But it is likewise true, that though the winters are severe here, yet they are commonly of no long duration; and I can justly say, that they do not continue above two months, and sometimes even less at Philadelphia; and it is something very uncommon when they continue for three months together, insomuch that it is put into the gazettes. Nearer the pole the winters are somewhat longer, and in the quite northern parts they are as long as the Swedish winters. The daily meteorological observations which I have made during my stay in America, and which are annexed to this work, will give more light in this matter.

3. The heat in summer is excessive, and without intermission. I own I have seen the thermometer rise to nearly the same degree at Aobo in Finland. But the difference is, that when the thermometer of professor Celsius rose to thirty degrees above the freezing point, once in two or three summers at Aobo, the same thermometer did not only, for three months together, stand at the same degree, but even sometimes rose higher, not only in Pennsylvania, but likewise in New York, Albany, and a great part of Canada. During the summers which I spent at Philadelphia, the thermometer has two or three times risen to thirty-six degrees above the freezing point. It may therefore with great certainty be said, that in Pennsylvania, the greatest part of April, the whole of May, and all the following months till October, are like our Swedish months of June and July. So excessive and continued a heat must certainly have very great effects. I here again refer to my meteorological observations. It must likewise be ascribed to the effects of this heat that the common melons, the water melons, and the pumpions of different sorts, are sown in the fields without any bells or the like put over them, and yet are ripe as early as July; further, that cherries are ripe at Philadelphia about the 25th of May, and that in Pennsylvania the wheat is frequently reaped in the middle of June.

4. The whole of September, and half, if not the whole of October, are the finest months in Pennsylvania; for the preceding ones are too hot. But these represent our July and half of August. The greatest part of the plants are in flower in September, and many do not begin to open their flowers before the latter end of this month. I make no doubt that the goodness of the season, which is enlivened by a clear sky and a tolerable hot sunshine, greatly contributes towards this last effort of Flora. Yet though these plants come out so late, they are quite ripe before the middle of October. But I am not able to account for their coming up so late in autumn; and I rather ask, why do not the centaurea jacea, the gentiana, amarella, and centaurium of Linnæus, and the common golden rod, or solidago virgaurea, flower before the end of summer? or why do the common noble liverwort, or anemone hepatica, the wild violets (*viola martia*, Linn.) the mezereon (*daphne mezereum*, Linn.) and other plants shew their flowers so early in spring? It has pleased the Almighty Creator to give to them this disposition. The weather at Philadelphia during these months is shewn by my meteorological tables. I have taken the greatest care in my observations, and have always avoided putting the thermometer into any place where the sun could shine upon it, or where he had before heated the wall by his beams; for in those cases my observations would certainly not have been exact. The weather during our September and October is too well known to want an explanation.*

5. However

* The English reader, who is perhaps not so well acquainted with the weather of the Swedish autumn, may form an idea of it, by having recourse to the *Calendarium Floræ*, or the botanical and oeconomic almanack.

5. However there are some spontaneous plants in Pennsylvania, which do not every year bring their seeds to maturity before the cold begins. To these belong some species of gentiana, of asters, and others. But in these too the wisdom of the Creator has wisely ordered every thing in its turn. For almost all the plants which have the quality of flowering so late in autumn, are perennial, or such as, though they have no seed to propagate themselves, can revive by shooting new branches and stalks from the same root every year. But perhaps a natural cause may be given to account for the late growth of these plants. Before the Europeans came into this country, it was inhabited by savage nations, who practised agriculture but little, or not at all, and chiefly lived upon hunting and fishing. The woods, therefore, have never been meddled with, except that sometimes a small part was destroyed by fire. The accounts which we have of the first landing of the Europeans here, shew that they found the country all over covered with thick forests. * From hence it follows, that, excepting the higher trees, and the plants which grow in the water or near the shore, the rest must, for the greatest part, have been obliged to grow, perhaps for a thousand years together, in a shade, either below or between the trees, and they therefore naturally belong to those which are only peculiar to woody and shady places. The trees in this country drop their leaves in such quantities in autumn, that the ground is covered with them to the depth of four or five inches. These leaves lie a good while in the next summer before they moulder, and this must of course hinder the growth of the plants which are under the trees, at the same time depriving them of the few rays of the sun, which can come down to them through the thick leaves at the top of the trees. These causes joined together make such plants flower much later than they would otherwise do. May it not therefore be said, that in so many centuries these plants had at last contracted a habit of coming up very late, and that it would now require a great space of time to make them lose this habit, and use them to quicken their growth?

Sept. 24th. We employed this whole day in gathering the seeds of plants of all kinds, and in putting scarce plants into the herbal.

Sept. 25th. Mr. Hesselius made me a present of a little piece of petrified wood, which was found in the ground here. It was four inches long, one inch broad, and three lines thick. It might plainly be seen that it had formerly been wood. For in the places where it had been polished, all the longitudinal fibres were easily distinguishable, so that it might have been taken for a piece of oak which was cut smooth. My piece was part of a still greater piece. It was here thought to be petrified hiccory. I afterwards got more of it from other people. Mr. Lewis Evans told me, that on the boundaries of Virginia, a great petrified block of hiccory had been found in the ground, with the bark on it, which was likewise petrified.

Mr. John Bartram, an Englishman, who lives in the country, about four miles from Philadelphia, has acquired a great knowledge of natural philosophy and history, and seems to be born with a peculiar genius for these sciences. In his youth he had no opportunity of going to school. But by his own diligence and indefatigable application he got, without instruction, so far in Latin, as to understand all Latin books, and even those which were filled with botanical terms. He has, in several successive years, made frequent excursions into different distant parts of North America, with an intention of gathering all sorts of plants which are scarce and little known. Those which he found

almanack of Sweden, in Dr. Linnæus's *Amœn. Academ.* and in Mr. Stillingfleet's Swedish tracts, translated from the *Amœn. Acad.* 2d edition. F.

* Vide Hackluyt's *Collect. Voy.* iii. 246.

he has planted in his own botanical garden, and likewise sent over their seeds or fresh roots to England. We owe to him the knowledge of many scarce plants, which he first found, and which were never known before. He has shewn great judgment, and an attention which lets nothing escape unnoticed. Yet with all these great qualities, he is to be blamed for his negligence; for he did not care to write down his numerous and useful observations. His friends at London once obliged him, to send them a short account of one of his travels, and they were very ready, with a good intention, though not with sufficient judgment, to get this account printed. But this book did Mr. Bartram more harm than good; for as he is rather backward in writing down what he knows, this publication was found to contain but few new observations. It would not however be doing justice to Mr. Bartram's merit, if it were to be judged of by this performance. He has not filled it with a thousandth part of the great knowledge which he has acquired, in natural philosophy and history, especially in regard to North America. I have often been at a loss to think of the sources, from whence he got many things which came to his knowledge. I likewise owe him many things, for he possessed that great quality of communicating every thing he knew. I shall, therefore, in the sequel, frequently mention this gentleman. For I should never forgive myself if I were to omit the name of the first inventor, and claim that as my own invention which I learnt from another person.

Many muscle-shells, or mytili anatini, are to be met with on the north-west side of the town, in the clay-pits, which were at present filled with water from a little brook in the neighbourhood. These muscles seem to have been washed into that place by the tide, when the water in the brook was high. For these clay-pits are not old, but were lately made. Poor boys sometimes go out of town, wade in the water, and gather great quantities of these shells, which they sell very easily, they being reckoned a dainty.

The Virginian azarole, with a red fruit, or Linnæus's *cratægus crus galli*, is a species of hawthorn, and they plant it in hedges, for want of that hawthorn, which is commonly used for this purpose in Europe. Its berries are red, and of the same size, shape, and taste, with those of our hawthorn. Yet this tree does not seem to make a good hedge, for its leaves were already fallen, whilst other trees still preserved theirs. Its spines are very long and sharp; their length being two or three inches. These spines are applied to some inconsiderable use. Each berry contains two stones.

Mr Bartram assured me, that the North American oak cannot resist putrefaction for near such a space of time as the European. For this reason, the boats (which carry all sorts of goods down from the upper parts of the country) upon the river Hudson, which is one of the greatest in these parts, are made of two kinds of wood. That part which must always be under water, is made of black oak; but the upper part, which is now above and now under water, and is therefore more exposed to putrefaction, is made of red cedar, or *juniperis Virginiana*, which is reckoned the most hardy wood in the country. The bottom is made of black oak, because that wood is very tough. For the river being full of stones, and the boats frequently running against them, the black oak gives way, and therefore does not easily crack. But the cedar would not do for this purpose, because it is hard and brittle. The oak likewise is not so much attacked by putrefaction, when it is always kept under water.

In autumn, I could always get good pears here; but every body acknowledged that this fruit would not succeed well in the country.

All my observations and remarks on the qualities of the rattle-snake, are inserted in the memoirs of the Swedish academy of sciences, for the year 1752, p. 316, and for the year 1753, p. 54, and thither I refer the reader.*

* Vide medical, &c. cases and experiments, translated from the Swedish, London 1758. p. 282.

Bears are very numerous higher up in the country, and do much mischief. Mr. Bartram told me, that when a bear catches a cow, he kills her in the following manner: he bites a hole into the hide, and blows with all his power into it, till the animal swells excessively and dies; for the air expands greatly between the flesh and the hide.* An old Swede, called Nils Gustave's son, who was ninety-one years of age, said, that in his youth, the bears had been very frequent hereabouts, but that they had seldom attacked the cattle: that whenever a bear was killed, its flesh was prepared like pork, and that it had a very good taste; and the flesh of bears is still prepared like ham, on the river Morris. The environs of Philadelphia, and even the whole province of Pennsylvania in general, contain very few bears, they having been extirpated by degrees. In Virginia they kill them in several different ways. Their flesh is eaten by both rich and poor, since it is reckoned equal in goodness to pork. In some parts of this province, where no hogs can be kept, on account of the great numbers of bears, the people are used to catch and kill them, and to use them instead of hogs. The American bears, however, are said to be less fierce and dangerous than the European ones.

Sept. 26th. The broad plantain, or *plantago major*, grows on the high-roads, foot-paths, meadows, and in gardens, in great plenty. Mr. Bartram had found this plant in many places on his travels, but he did not know whether it was an original American plant, or whether the Europeans had brought it over. This doubt had its rise from the savages (who always had an extensive knowledge of the plants of the country) pretending that this plant never grew here before the arrival of the Europeans. They therefore gave it a name which signifies, the Englishman's foot; for they say, that where a European had walked, there this plant grew in his foot-steps.

The *chenopodium album*, or goosefoot with sinuated leaves, grows in plenty in the gardens. But it is more scarce near the houses, in the streets, on dunghills, and corn-fields. This seems to shew, that it is not a native of America, but has been brought over amongst other seeds from Europe. In the same manner it is thought that the tansey, (*tanacetum vulgare*, Linn.) which grows here and there in the hedges, on the roads, and near houses, was produced from European seeds.

The common vervain, with blue flowers, or *verbena officinalis*, was shewn to me by Mr. Bartram, not far from his house, in a little plain near Philadelphia. It was the only place where he had found it in America; and for this reason I suppose it was likewise sown here amongst other European seeds.

Mr. Bartram was at this time building a house in Philadelphia, and had sunk a cellar to a considerable depth, the soil of which was thrown out. I here observed the following strata: the upper loose soil was only half a foot deep, and of a dark brown colour. Under it was a stratum of clay, so much blended with sand, that it was in greater quantity than the clay itself; and this stratum was eight feet deep. These were both brick coloured. The next stratum consisted of little pebbles mixed with a coarse sand. The stones consisted either of a clear, or of a dark quartz; †

* This has all the appearance of a vulgar error: neither does the succeeding account of the American bears being carnivorous, agree with the observations of the most judicious travellers, who deny the fact. P.

But however, it might be feasible to reconcile both opinions. For Europe has two or three kinds of bears, one species of which is carnivorous, the other lives only on vegetables: the large brown species, with its small variety, are reputed to be carnivorous, the black species is merely phytivorous. In case therefore both species are found in North America, it would be very easy to account for their being both carnivorous and not. F.

† *Quartzum hyalinum*, Linn. Syst. Nat. 3. p. 65. *Quartzum solidum pellucidum*, Wallerii Miner. 91. The common quartz, Forster's Mineralogy, p. 16. And *quartzum coloratum*, Linn. Syst. Nat. 3. p. 65. *Quartzum solidum opacum coloratum*, Wall. Min. 99. The impure quartz, Forst. Min. p. 16.

they were quite smooth and roundish on the outside, and lay in a stratum which was a foot deep. Then the brick-coloured clay mixed with sand appeared again. But the depth of this stratum could not be determined. Query, Could the river formerly have reached to this place and formed these strata?

Mr. Bartram has not only frequently found oyster-shells in the ground, but likewise met with such shells and snails, as undoubtedly belong to the sea, at the distance of a hundred and more English miles from the shore. He has even found them on the ridge of mountains which separate the English plantations from the habitations of the savages. These mountains, which the English call the blue mountains, are of considerable height, and extend in one continued chain from north to south, or from Canada to Carolina. Yet in some places they have gaps, which are as it were broke through, to afford a passage for the great rivers, which roll down into the lower country.

The cassia *chamæcrista* grew on the roads through the woods, and sometimes on uncultivated fields, especially when shrubs grew in them. Its leaves are like those of the sensitive plant, or mimosa, and have likewise the quality of contracting when touched, in common with the leaves of the latter.

The crows in this country are little different from our common crows in Sweden. Their size is the same with that of our crows, and they are as black as jet in every part of their body. I saw them flying to-day in great numbers together. Their voice is not quite like that of our crows, but has rather more of the cry of the rook, or Linnæus's *corvus frugilegus*.

Mr. Bartram related, that on his journies to the northern English colonies, he had discovered great holes in the mountains on the banks of rivers, which, according to his description, must exactly have been such giants' pots,* as are to be met with in Sweden, and which I have described in a particular dissertation read in the Royal Swedish Academy of Sciences. Mr. Bartram has likewise addressed some letters to the Royal Society at London upon this subject. For some people pretended that these holes were made by the savages, that they might in time of war hide their corn and other valuable effects in them. But he wrote against this opinion, and accounted for the origin of these cavities in the following manner: When the ice settles, many pebbles stick in it; in spring, when the snow melts, the water in the rivers swells so high that it reaches above the place where these holes are now found in the mountains. The ice therefore will of course float as high. And then it often happens that the pebbles which were contained in it ever since autumn, when it first settled on the banks of the river, fall out of the ice upon the rocky bank, and are from thence carried into a cleft or crack by the water. These pebbles are then continually turned about by the water, which comes in upon them, and by this means they gradually form the hole. The water at the same time polishes the stone by its circular motion round it, and helps to make the hole or cavity round. It is certain that by this turning and tossing the stone is at last unfit for this purpose: but the river throws commonly every spring other stones instead of it into the cavity, and they are turned round in the same manner. By this whirling, both the mountain and the stone afford either a fine or a coarse sand, which is washed away by the water, when in spring, or at other times, it is high enough to throw its waves into the cavity. This was the opinion of Mr. Bartram about the origin of these cavities. The Royal

* In Sweden, and in the north of Germany, the round holes in rivers, with a stony or rocky bed, which the whirling of the water has made, are called giants' pots; these holes are likewise mentioned in Mr. Grosley's new observations on Italy, Vol. i. p. 8. F.

Society of Sciences at London, has given a favourable reception to, and approved of them*. The remarks which I made in the summer of the year 1743, during my stay at Land's-Ort, in my country, will prove that I was at that time of the same opinion, in regard to these holes. I have since further explained this opinion in a letter to the Royal Academy of Sciences; and this letter is still preserved in the Academy's Memoirs, which have not yet been published. But there is great reason to doubt, whether all cavities of this kind, in mountains, have the same origin.

Here are different species of mulberry trees, which grow wild in the forests of North and South America. In these parts the red mulberry trees are more plentiful than any other. However, Mr. Bartram assured me, that he had likewise seen the white mulberry trees growing wild, but that they were more scarce. I asked him, and several other people of this country, why they did not set up silk manufactures, having such a quantity of mulberries, which succeed so easily? For it has been observed, that when the berries fall upon the ground, where it is not compact, but loose, they soon put out several fine delicate shoots. But they replied, that it would not be worth while to erect any silk manufactures here, because labour is so dear. For a man gets from eighteen pence to three shillings and upwards, for one day's work, and the women are paid in proportion. They were therefore of opinion, that the cultivation of all sorts of corn, of hemp, and of flax, would be of greater advantage, and that at the same time it did not require near so much care as the feeding of silk-worms. By the trials of a governor in Connecticut, which is a more northern province than New York, it is evident, however, that silk-worms succeed very well there, and that this kind of mulberry trees is very good for them. The governor brought up a great quantity of silk worms in his court-yard; and they succeeded so well, and spun so much silk, as to afford him a sufficient quantity for clothing himself and all his family.

Several sorts of vines likewise grow wild hereabouts. Whenever I made a little excursion out of town, I saw them in numerous places climbing up trees and hedges. They clasp around them, and cover them sometimes entirely, and even hang down on the sides. This has the same appearance, at a distance, as the tendrils of hops climbing along trees. I enquired of Mr. Bartram, why they did not plant vineyards, or press wine from the grapes of the wild vine? But they answered, that the same objection lay against it, which lies against the erection of a silk manufacture, that the necessary hands were too scarce, and it therefore was more rational to make agriculture their chief employment. But the true reason undoubtedly is, that the wine which is pressed out of most of the North American wild grapes, is sour and sharp, and has not near such an agreeable taste as that which is made from European grapes.

The Virginian wake robin, or *arum virginicum*, grows in wet places. Mr. Bartram told me, that the savages boiled the spadix and the berries of this flower, and devoured it as a great dainty. When the berries are raw, they have a harsh, pungent taste, which they lose in great measure upon boiling.

The *farothra gentianoides* grows abundantly in the fields, and under the bushes, in a dry sandy ground near Philadelphia. It looks extremely like our whortleberry bushes when they first begin to green, and when the points of the leaves are yet red. Mr. Bartram has sent this plant to Dr. Dillenius; but that gentleman did not know where he should range it. It is reckoned a very good traumatic, and this quality Mr.

* How far this approbation of the Royal Society ought to be credited, is to be understood from the advertisements published at the head of each new volume of the Philosophical Transactions. F.

Bartram himself experienced; for being thrown and kicked by a vicious horse, in such a manner as to have both his thighs greatly hurt, he boiled the farothra, and applied it to his wounds. It not only immediately appeased his pain, which before had been very violent, but he likewise, by its assistance, recovered in a short time.

Having read, in Mr. Miller's botanical dictionary, that Mr. Peter Collinson had a particular larch tree from America in his garden, I asked Mr. Bartram whether he was acquainted with it? He answered, that he had sent it himself to Mr. Collinson; that it only grew in the eastern parts of New Jersey, and that he had met with it in no other English plantation. It differs from the other species of larch trees, its cones being much less. I afterwards saw this tree in great plenty in Canada.

Mr. Bartram was of opinion, that the apple tree was brought into America by the Europeans, and that it never was there before their arrival. But he looked upon peaches as an original American fruit, and as growing wild in the greatest part of America. Others again were of opinion, that they were first brought over by the Europeans. But all the French in Canada agreed, that on the banks of the river Mississippi, and in the country thereabouts, peaches were found growing wild in great quantity*.

Sept. 27th. The tree which the English here call persimon, is the *diospyros virginiana* of Linnæus. It grows for the greatest part in wet places round the water-pits. I have already mentioned, that the fruits of this tree are extremely bitter and sharp before they are quite ripe, and that being eaten in that state, they quite contract one's mouth, and have a very disagreeable taste. But as soon as they are ripe, which does not happen till they have been quite softened by the frost, they are a very agreeable fruit. They are here eaten raw, and seldom any other way. But in a great book, which contains a description of Virginia, you meet with different ways of preparing the persimon, under the article of that name. Mr. Bartram related, that they were commonly put upon the table amongst the sweet-meats, and that some people made a tolerably good wine of them. Some of these persimon fruits were dropped on the ground in his garden, and were almost quite ripe, having been exposed to a great degree of the heat of the sun. We picked up a few and tasted them, and I must own that those who praised this fruit as an agreeable one, have but done it justice. It really deserves a place among the most palatable fruit of this country, when the frost has thoroughly conquered its acrimony.

The *verbascum thapsus*, or great white mullein, grows in great quantity on roads, in hedges, on dry fields, and high meadows of a ground mixed with sand. The Swedes here call it the tobacco of the savages, but owned, that they did not know whether or no the Indians really used this plant instead of tobacco. The Swedes are used to tie the leaves round their feet and arms when they have the ague. Some of them prepared a tea from the leaves, for the dysentery. A Swede likewise told me, that a decoction of the roots was injected into the wounds of the cattle which are full of worms, which killed these worms, and made them fall out†.

* Thomas Herriot, servant to Sir Walter Raleigh, who was employed by him to examine into the productions of North America, makes no mention of the peach among the other fruits he describes; and M. du Pratz, who has given a very good account of Louisiana and the Mississippi, says, that the natives got their peaches from the English colony of Carolina, before the French settled there. P.

† These worms are the larvas of the oestrus or gadfly, which deposits its eggs on the back of cattle, and the larvas being hatched from these eggs, cause great sores, wherein they live till they are ready for their change. In the south of Russia they use, for the same purpose, the decoction of *veratrum*, or the white hellebore. F.

Sept. 28th. The meadows which are surrounded by wood, and were at present mown, have a fine lively verdure. On the contrary, when they lie on hills, or in open fields, or in some elevated situation, especially so that the sun may be able to act upon them without any obstacles, their grass looks brown and dry. Several people from Virginia told me, that on account of the great heat and drought, the meadows and pastures almost always had a brown colour, and looked as if they were burnt. The inhabitants of those parts do not therefore enjoy the pleasure which an European feels at the sight of our verdant, odoriferous meadows.

The American nightshade, or the *phytolacca decandra*, grows abundantly in the fields, and under the trees, on little hills. Its black berries are now ripe. We observed to-day some little birds with a blue plumage, and of the size of our hortulans and yellow hammers (*emberiza citrinella* and *emberiza hortulanus*) flying down from the trees, in order to settle upon the nightshade and eat its berries.

Towards night I went to Mr. Bartram's country seat.

Sept. 29th. The *gnaphalium margaritaceum* grows in astonishing quantities upon all uncultivated fields, glades, hills, and the like. Its height is different according to its different soil and situation. Sometimes it is very ramose, and sometimes very little. It has a strong, but agreeable smell. The English call it life everlasting; for its flowers, which consist chiefly of dry, shining, silvery leaves (*folia calycina*) do not change when dried. This plant is now every where in full blossom. But some have already lost the flowers, and are beginning to drop the seeds. The English ladies were used to gather great quantities of this life everlasting, and to pluck them with the stalks. For they put them into pots with or without water, amongst other fine flowers which they had gathered both in the gardens and in the fields, and placed them as an ornament in the rooms. The English ladies in general are much inclined to have fine flowers all the summer long, in or upon the chimneys, sometimes upon a table, or before the windows, either on account of their fine appearance, or for the sake of their sweet scent. The *gnaphalium* abovementioned was one of those which they kept in their rooms during the winter, because its flowers never altered from what they were when they stood in the ground. Mr. Bartram told me another use of this plant. A decoction of the flowers and stalks is used to bathe any pained or bruised part, or it is rubbed with the plant itself tied up in a bag.

Instead of flax several people made use of a kind of dog's bane, or Linnaeus's *apocynum cannabinum*. The people prepared the stalks of this plant, in the same manner as we prepare those of hemp or flax. It was spun, and several kinds of stuffs were woven from it. The savages are said to have had the art of making bags, fishing-nets, and the like, for many centuries together, before the arrival of the Europeans.

I asked Mr. Bartram whether he had observed in his travels that the water was fallen, and that the sea had formerly covered any places which were now land. He told me, that from what he had experienced he was convinced that the greatest part of this country, even for several miles together, had formerly been under water. The reasons which led him to give credit to this opinion were the following:

1. On digging in the blue mountains, which are above three hundred English miles distant from the sea, you find loose oyster and other sorts of shells; and they are also likewise to be met with in the vallies formed by these mountains.

2. A vast quantity of petrified shells are found in limestone, flint, and sandstone, on the same mountains. Mr. Bartram assured me at the same time, that it was incredible what quantities of them there were in the different kinds of stones of which the mountains consist.

3. The same shells are likewise dug in great quantity, quite entire and not mouldered, in the provinces of Virginia and Maryland, as also in Philadelphia and in New York.

4. On digging wells (not only in Philadelphia, but likewise in other places) the people have met with trees, roots, and leaves of oak, for the greatest part not yet rotten, at the depth of eighteen feet.

5. The best soil and the richest mould is to be met with in the vallies hereabouts. These vallies are commonly crossed by a rivulet or brook; and on their declivity a mountain commonly rises, which in those places, where the brook passes close to it, looks as if it were cut on purpose. Mr. Bartram believed that all these vallies formerly were lakes; that the water had, by degrees, hollowed out the mountain, and opened a passage for itself through it; and that the great quantity of slime which is contained in the water, and which had subsided to the bottom of the lake, was the rich soil which is at present in the vallies, and the cause of their great fertility. But such vallies and cloven mountains are very frequent in the country, and of this kind is the peculiar gap between two mountains, through which a river takes its course, on the boundaries of New York and Pennsylvania. The people, in a jest, say, that this opening was made by the devil, as he wanted to go out of Pennsylvania into New York.

6. The whole appearance of the blue mountains plainly shews, that the water formerly covered a part of them. For many are broken in a peculiar manner, but the highest are plain.

7. When the savages are told that shells are found on these high mountains, and that from thence there is reason to believe that the sea must formerly have extended to them, and even in part flown over them; they answer, that this is not new to them, they having a tradition from their ancestors among them, that the sea formerly surrounded these mountains.

8. The water in rivers and brooks likewise decreases. Mills, which sixty years ago were built on rivers, and at that time had a sufficient supply of water almost all the year long, have at present so little, that they cannot be used, but after a heavy rain, or when the snow melts in spring. This decrease of water, in part, arises from the great quantity of land which is now cultivated, and from the extirpation of great forests for that purpose.

9. The sea-shore increases likewise in time. This arises from the quantity of sand continually thrown on shore from the bottom of the sea, by the waves.

Mr. Bartram thought that some peculiar attention should be paid to another thing relating to these observations. The shells which are to be found petrified on the northern mountains, are of such kinds as at present are not to be got in the sea, in the same latitude, and they are not fished on the shore, till you come to South Carolina. Mr. Bartram from hence took an occasion to defend Dr. Thomas Burnet's opinion, that the earth, before the deluge, was in a different position towards the sun. He likewise asked whether the great bones, which are sometimes found in the ground in Siberia, and which are supposed to be elephants bones and tusks, did not confirm his opinion. For at present those animals cannot live in such cold countries; but if, according to Dr. Burnet, the sun once formed different zones about our earth, from those it now makes, the elephant may easily be supposed to have lived in Siberia*. However, it seems that all which we have hitherto mentioned, may have been

* The bones and tusks of elephants are not only found in Russia, but also in the canton of Basil in Switzerland, in the dominions of the Marquis of Bareuth in Franconia, and more instances are found in the Protogæa of the celebrated Leibnitz. Lately, near the river Ohio, have been discovered a great number of

been the effect of different causes. To those belong the universal deluge, the increase of land, which is merely the work of time, and the changes of the course of rivers, which, when the snow melts, and in great floods, leave their first beds, and form new ones.

At some distance from Mr. Bartram's country house, a little brook flowed through the wood, and likewise ran over a rock. The attentive Mr. Bartram here shewed me several little cavities in the rock, and we plainly saw that they must have been generated in the manner I before described, that is, by supposing a pebble to have remained in a cleft of the rock, and to have been turned round by the violence of the water, till it had formed such a cavity in the mountain. For on putting our hands into one of these cavities, we found that it contained numerous small pebbles, whose surface was quite smooth and round. And these stones we found in each of the holes.

Mr. Bartram shewed me a number of plants which he had collected into a herbal on his travels. Among these were the following, which likewise grow in the northern parts of Europe, of which he had either got the whole plants or only broken branches.

1. *Betula alba*, the common birch tree, which he had found on the Cats Hills.
2. *Betula nana*. This species of birch grows in several low places towards the hills.
3. *Comarum palustre*, in the meadows, between the hills in New Jersey.
4. *Gentiana lutea*, the great *Gentian*, from the fields near the mountains. It was very like our variety, but had not so many flowers under each leaf.

of skeletons of elephants, with their tusks, and very remarkable grinders, still sticking in their jaw-bones, were sent to the British Museum; the late Dr. Littleton, bishop of Carlisle, also lodged some teeth, sticking in their jaw-bones, in the Museum of the Royal Society, which were brought from Peru. The rivers Chatunga and Indighirka, in Siberia, are remarkable for affording, on their banks, great quantities of bones and tusks of elephants, which being preserved there by the great frost, and in the short summer of a few weeks, the rain being rare, these tusks are commonly so fresh that they are employed in Russia as common ivory, on account of the great quantity brought from these places to Russia; some of them were eight feet long, and of three hundred pounds weight. There have been found grinders of nine inches diameter. But the American grinders of elephants from near the Ohio are yet more remarkable, on account of their being provided with crowns at their tops, such as are only found in the carnivorous animals, and such as feed on hard bones or nuts; whilst, on the contrary, elephants, at present feeding on grasses and soft vegetables, have no such crowns at the tops of their grinders. Livy, it is true, makes a distinction between the Asiatic or Indian elephants, and the African ones: and remarks the latter to be inferior to the former in size and vigour; but whether the teeth in these animals are so much different from those of the other variety, has never been attended to. This circumstance of the difference in the fossil grinders of elephants, from those in the living ones, and the place where these skeletons were found in, viz. Siberia, Germany, and America, where at present no elephants are to be met with, opens a wide field to conjectures, in regard to the way by which these animals were carried to those spots. The flood in the deluge perhaps has carried them thither: nor is it contrary to reason, history or revelation, to believe these skeletons to be the remainders of animals which lived on the surface of this globe anterior to the Mosaic creation; which may be considered only as a new modification of the creatures living on this globe, adapted to its present state, under which it will remain until circumstances will make a new change necessary, and then our globe will, by a new creation or revolution, appear more adapted to its state, and be stocked with a set of animals more suitable to that state. Every man used to philosophy and reasoning will find that this plan gives a grand idea of the Creator, his œconomy and management of the universe; and moreover, it is conformable to the meaning of the words of a sacred writer, who says: Psal. civ. 29, 30. "Thou hidest thy face and they (small and great beasts) are troubled; thou takest away their breath, they die, and return to their dust. Thou sendest forth thy spirit, they are created; and thou renewest the face of the earth." See Dr. Hunter's remarks on the above-mentioned teeth in the Philosophical Trans. Vol. lviii. F.

5. *Linnæa borealis*, from the mountains in Canada. It creeps along the ground.
6. *Myrica gale*, from the neighbourhood of the river Susquehanna, where it grows in a wet soil.
7. *Potentilla fruticosa*, from the swampy fields and low meadows between the river Delaware, and the river New York.
8. *Trientalis Europæa*, from the Cats Hills.
9. *Triglochin maritimum*, from the salt springs towards the country of the five nations.

Mr. Bartram shewed me a letter from East Jersey, in which he got the following account of the discovery of an Indian grave. In the April of the year 1744, as some people were digging a cellar, they came upon a great stone, like a tomb-stone, which was at last got out with great difficulty; and about four feet deeper under it, they met with a large quantity of human bones and a cake of maize. The latter was yet quite untouched, and several of the people present tasted it out of curiosity. From these circumstances it was concluded, that this was a grave of a person of note among the savages. For it is their custom to bury along with the deceased meat and other things which he liked best. The stone was eight feet long, four feet broad, and even some inches more, where it was broadest, and fifteen inches thick at one end, but only twelve inches at the other end. It consisted of the same coarse kind of stone that is to be got in this country. There were no letters nor other characters visible on it.

The corn which the Indians chiefly cultivate is the maize, or zea mays, Linn. They have little corn fields for that purpose. But besides this, they likewise plant a great quantity of squashes, a species of pumpions or melons, which they have always cultivated, even in the remotest ages. The Europeans settled in America got the seeds of this plant, and at present their gardens are full of it; the fruit has an agreeable taste when it is well prepared. They are commonly boiled, then crushed (as we used to do with turnips when we make a pulse of them) and some pepper or other spice thrown upon them, and the dish is ready. The Indians likewise sow several kinds of beans, which for the greatest part they have got from the Europeans. But pease, which they likewise sow, they have always had amongst them, before any foreigners came into the country. The squashes of the Indians, which now are likewise cultivated by the Europeans, belong to those kinds of gourds (*cucurbita*) which ripen before any other. They are a very delicious fruit, but will not keep. I have however seen them kept till pretty late in winter.

Sept. 30th. Wheat and rye are sown in autumn about this time, and commonly reaped towards the end of June, or in the beginning of July. These kinds of corn, however, are sometimes ready to be reaped in the middle of June, and there are even examples that they have been mown in the beginning of that month. Barley and oats are sown in April, and they commonly begin to grow ripe towards the end of July. Buck-wheat is sown in the middle or at the end of July, and is about this time, or somewhat later, ready to be reaped. If it be sown before the above-mentioned time, as in May, or in June, it only gives flowers and little or no corn.

Mr. Bartram and other people assured me, that most of the cows, which the English have here, are the offspring of those which they bought of the Swedes, when they were masters of the country. The English themselves are said to have brought over but few. The Swedes either brought their cattle from home, or bought them of the Dutch, who were then settled here.

Near

Near the town, I saw an ivy or *hedera helix*, planted against the wall of a stone building, which was so covered by the fine green leaves of this plant, as almost to conceal the whole. It was doubtless brought over from Europe, for I have never perceived it any where else on my travels through North America. But in its stead I have often seen wild vines made to run up the walls.

I asked Mr. Bartram whether he had observed that trees and plants decreased in proportion as they were brought further to the north, as Catesby pretends; he answered, that the question should be more limited, and then his opinion would prove the true one. There are some trees which grow better in southern countries, and become less as you advance to the north. Their seeds or berries are sometimes brought into colder climates by birds and by other accidents. They gradually decrease in growth, till at last they will not grow at all. On the other hand, there are other trees and herbs which the wise Creator destined for the northern countries, and they grow there to an amazing size. But the further they are transplanted to the south the less they grow, till at last they degenerate so much as not to be able to grow at all. Other plants love a temperate climate, and if they be carried either south or north they will not succeed well, but always decrease. Thus for example, Pennsylvania contains some trees which grow exceedingly well, but always decrease in proportion as they are carried further off either to the north or to the south.

I afterwards, on my travels, had frequent proofs of this truth. The *sassafras*, which grows in Pennsylvania, under forty degrees of latitude, and becomes a pretty tall and thick tree, was so little at Oswego and Fort Nicholson, between forty-three and forty-four degrees of latitude, that it hardly reached the height of two or four feet, and was seldom so thick as the little finger of a full grown person. This was likewise the case with the tulip tree. For in Pennsylvania it grows as high as our tallest oaks and firs, and its thickness is proportionable to its height. But about Oswego it was not above twelve feet high, and no thicker than a man's arm. The sugar maple, or *acer saccharinum*, is one of the most common trees in the woods of Canada, and grows very tall. But in the southern provinces, as New Jersey and Pennsylvania, it only grows on the northern side of the blue mountains, and on the steep hills which are on the banks of the river, and which are turned to the north. Yet there it does not attain to a third or fourth part of the height which it has in Canada. It is needless to mention more examples.

Oct. 1st. The gnats, which are very troublesome at night here, are called musquetoës. They are exactly like the gnats in Sweden, only somewhat less; and the description which is to be met with in Dr. Linnæus's *Systema Naturæ*, and *Fauna Suecica*, fully agrees with them, and they are called by him *culex pipiens*. In daytime or at night they come into the houses, and when the people are gone to bed they begin their disagreeable humming, approach always nearer to the bed, and at last suck up so much blood, that they can hardly fly away. Their bite causes blisters in people of a delicate complexion. When the weather has been cool for some days, the musquetoës disappear; but when it changes again, and especially after a rain, they gather frequently in such quantities about the houses that their numbers are astonishing. The chimneys of the English, which have no valves for shutting them up, afford the gnats a free entrance into the houses. In sultry evenings, they accompany the cattle in great swarms from the woods to the houses, or to town, and when they are drove before the houses the gnats fly in wherever they can. In the greatest heat of summer they are so numerous in some places that the air seems to be quite full of them, especially near swamps and stagnate waters, such as the river Morris, in New Jersey.

Jersey. The inhabitants therefore make a fire before their houses, to expel these disagreeable guests by the smoke. The old Swedes here said that gnats had formerly been much more; numerous that even at present they swarmed in vast quantities on the sea shore, near the salt water; and that those which troubled us this autumn in Philadelphia were of a more venomous kind than they commonly used to be. This last quality appeared from the blisters which were formed on the spots where the gnats had inserted their sting. In Sweden I never felt any other inconvenience from their sting than a little itching, whilst they sucked. But when they stung me here at night, my face was so disfigured by little red spots and blisters, that I was almost ashamed to shew myself.

I have already mentioned somewhat about the enclosures usual here; I now add, that most of the planks which are put horizontally, and of which the enclosures in the environs of Philadelphia chiefly consist, are of the red cedar wood, which is here reckoned more durable than any other. But where this could not be got either white or black oak supplied its place. The people were likewise very glad if they could get cedar wood for the posts, or else they took white oak or chesnut, as I was told by Mr. Bartram. But it seems that that kind of wood in general does not keep well in the ground for a considerable time. I saw some posts made of chesnut wood, and put into the ground only the year before, which were already for the greatest part rotten below.

The *sassafras*-tree, or *laurus sassafras*, Linn. grows in abundance in the country, and stands scattered up and down the woods, and near bushes and enclosures. On old grounds which are left uncultivated, it is one of the first that comes up, and is as plentiful as young birches are on those Swedish fields, which are formed by burning the trees which grew on them*. The *sassafras* grows in a dry loose ground, of a pale brick colour, which consists, for the greatest part, of sand, mixed with some clay. It seems to be but a poor soil. The mountains round Gothenburg, in Sweden, would afford many places rich enough for the *sassafras* to grow in, and I even fear they would be too rich. I here saw it both in the woods amidst other trees, and more frequently by itself along the enclosures. In both it looks equally fresh. I have never seen it on wet or low places. The people here gather its flowers, and use them instead of tea; but the wood itself is of no use in œconomy; for when it is set on fire, it causes a continual crackling without making any good fire. The tree spreads its roots very much, and new shoots come up from them in some places; but these shoots are not good for transplanting, because they have so few fibres besides the root which connects them to the main stem that they cannot well strike into the ground. If therefore any one would plant *sassafras*-trees, he must endeavour to get their berries, which, however, is difficult, since the birds eat them before they are half ripe. The cows are very greedy after the tender new shoots, and look for them every where.

The bark of this tree is used by the women here in dying worsted a fine lasting orange colour, which does not fade in the sun. They use urine instead of alum in dying, and boil the dye in a brass boiler, because in an iron vessel it does not yield so fine a colour. A woman in Virginia has successfully employed the berries of the *sassafras* against a great pain in one of her feet, which for three years together, she had to

* In Mr. Osbeck's Voyage to China, vol. i. p. 50, in a note, an account is given of this kind of land, which the Swedes call *Swedieland*; where it is observed, that the trees being burnt, their ashes afford manure sufficient for three years, after which they are left uncultivated again, till, after twenty or more years, a new generation of trees being produced on them, the country people burn them, and cultivate the country for three years again. F.

such a degree, that it almost hindered her from walking. She was advised to broil the berries of saffrafras, and to rub the painful parts of her foot with the oil, which by this means would be got from the berries. She did so, but at the same time it made her vomit; yet this was not sufficient to keep her from following the prescription three times more, though as often as she made use thereof, it always had the same effect. However, she was entirely freed from that pain, and perfectly recovered.

A black woodpecker with a red head, or the *picus pileatus*, Linn. is frequent in the Pensylvanian forests, and stays the winter, as I know from my own experience. It is reckoned among those birds which destroy the maize, because it settles on the ripe ears, and destroys them with its bill. The Swedes call it *tillkroka*; but all other woodpeckers, those with gold yellow wings excepted, are called *hackspickar* in the Swedish language. I intend to describe them all together more exactly in a particular work. I only observe here, that almost all the different species of woodpeckers are very noxious to the maize, when it begins to ripen; for by picking holes in the membrane round the ear, the rain gets into it, and causes the ear, with all the corn it contains, to rot.

Oct. 3. In the morning I set out for Wilmington, which was formerly called Christina by the Swedes, and is thirty English miles to the south-west of Philadelphia. Three miles behind Philadelphia I passed the river Skulkill in a ferry, beyond which the country appears almost a continual chain of mountains and vallies. The mountains have an easy slope on all sides, and the vallies are commonly crossed by brooks, with crystal streams. The greater part of the country is covered with several kinds of deciduous trees; for I scarcely saw a single tree of the fir kind, if I except a few red cedars. The forest was high, but open below, so that it left a free prospect to the eye, and no under-wood obstructed the passage between the trees. It would have been easy in some places to have gone under the branches with a carriage for a quarter of a mile, the trees standing at great distances from each other, and the ground being very level. In some places little glades opened, which were either meadows, pastures, or corn-fields; of which latter some were cultivated and others not. In a few places several houses were built close to each other; but for the greatest part they were single. In part of the fields the wheat was already sown in the English manner without trenches, but with furrows pretty close together. I sometimes saw the country people very busy in sowing their rye. Near every farm-house was a little field with maize. The inhabitants hereabouts were commonly either English or Swedes.

All the day long I saw a continual variety of trees; walnut-trees of different sorts, which were all full of nuts; chesnut-trees quite covered with fine chesnuds; mulberries, saffrafras, liquidambar, tulip trees, and many others.

Several species of vines grew wild hereabouts. They run up to the summits of the trees, their clusters of grapes and their leaves covering the stems. I even saw some young oaks five or six fathoms high, whose tops were crowned with vines. The ground is that which is so common hereabouts, which I have already described, viz. a clay mixed with a great quantity of sand, and covered with a rich soil or vegetable earth. The vines are principally seen on trees which stand single in corn-fields, and at the end of woods, where the meadows, pastures, and fields begin; and likewise along the enclosures, where they cling with their tendrils round the trees which stand there. The lower parts of the plant are full of grapes, which hang below the leaves, and were now almost ripe, and had a pleasant sourish taste. The country people gather them in great quantities, and sell them in the town. They are eaten without further preparation; and commonly people are presented with them when they come to pay a visit.

The soil does not seem to be deep hereabouts, for the upper black stratum is hardly two inches. This I had an occasion to see, both in such places where the ground is dug up, and in such where the water, during heavy showers of rain, has made cuts, which are pretty numerous here. The upper soil has a dark colour, and the next a pale colour like bricks. I have observed every where in America, that the depth of the upper soil does not by far agree with the computation of some people, though we can almost be sure, that in some places it never was stirred since the deluge. I shall be more particular in this respect afterwards*.

The *datura stramonium*, or thorn apple, grows in great quantities near all the villages. Its height is different according to the soil it is in; for in a rich soil it grows eight or ten feet high, but in a hard and poor ground, it will seldom come up to six inches. This *datura*, together with the *phytolacca*, or American nightshade, grow here in those places near the gardens, houses, and roads, which in Sweden are covered with nettles and goose-foot, which European plants are very scarce in America. But the *datura* and *phytolacca* are the worst weeds here, nobody knowing any particular use of them.

* The learned Dr. Wallerius, in his Mineralogy, § 8. in the note to the article *humus communis atra*, mentions, that some people were of opinion, that the mould of our globe increased gradually from the yearly putrefaction of plants and their parts, especially in such places as had been uncultivated ever since the deluge; and that thus, in a hundred years, half an inch of mould was produced. But he observes, in the same time, that this observation was not at all exact; for as the common mould seldom exceeds a foot, it must from thence follow, that since the deluge no more than 2400 years were elapsed, though the scripture chronology reckons upwards of 4000 years since that event: besides this, he remarks, that mould always becomes more dry and compressed, where it is out of the reach of rain and snow; and where it is exposed to rain, it is carried off to lower places, and therefore increases and decreases according to the qualities of its local situation. Moreover, vegetables, it is known, prosper the best where mould is found. As the surface of our globe has been covered with vegetables since the deluge, they must have had a mould to grow in ever since that time; consequently it is highly probable, that there must have been a mould covering the surface of our globe ever since the first origin. I should be led, by some other considerations, to doubt of the infallibility of this rule for the increase of mould. In Russia, on this side the river Volga, are high and extensive plains, which have been uncultivated ever since the deluge; for, we know from history, that the Scythians, Sarmatians, Huns, Chazars, and Mogols, were successively the masters of these vast countries, and were altogether nomadic nations, who lived without agriculture: the country has been without wood since time immemorial, nor could there even spring up any wood whatsoever, since its rambling possessors every spring set fire to the old dry grass, in order to make room for the new grass, which, in the latter end of May, I found came up very near to my waste. And these vast desert plains I saw every where covered with at least two feet mould; nay, in some places it amounted to four feet; this would give, according to the former rule of half an inch per century, 4800 years, in the first instance; and, in the second, 9600 years; and therefore shews, that this rule for calculating the increase of mould is very precarious. The chemical analysis of plants shews, that they consist of water, earth, acid, alkali, oil, and an inflammable principle, independent of the last substance, and called by a late German chemist, the caustic: these substances must enter yearly the new plants, and make their substance, and are as it were regenerated in these new plants, after being set at liberty from the structure of the last year's plants by putrefaction, or by fire. Mould; chemically examined, has the same analogous parts. Acid and caustic are plentifully contained in the common air, and may also easily be restored to the mould, and thus circulate through a new system of plants. Water comes likewise from rain and snow, out of our atmosphere; alkaline and oily particles, or a kind of soap, are the only things wanting, which, when added with the former to any subtle earth, will make a good mould; and these are produced by putrefaction or fire, from vegetable and animal substances, and are the great promoters of vegetation.

But the great question is, from whence these various substances, necessary for vegetation, originally came? To believe they are produced from putrified vegetables, is begging the question, and making a *circulus vitiosus* in the argument. There is therefore no evasion; they were certainly produced by the great Creator of the universe, and endowed with such qualities as make them capable of producing in various mixtures new bodies; and when they are introduced by moisture into the first stamina of a plant, or a seed, they expand these stamina, and constitute a new being, capable of affording food to the animal creation. It is evident, Mr. Kalm hinted at the above-mentioned opinion of the increase of mould; and this gave me an opportunity of confirming his argument, and of stating fairly the great question on which agriculture, the most necessary branch of human arts, depends. F.

Turnip-fields are sometimes to be seen. In the middle of the high road I perceived a dead black snake, which was four feet six inches long, and an inch and a half in thickness. It belonged to the viper kind.

Late at night a great halo appeared round the moon. The people said that it prognosticated either a storm or rain, or both together. The smaller the ring is, or the nearer it comes to the moon, the sooner this weather sets in. But this time neither of these changes happened, and the halo had foretold a coldness in the air.

I saw to day the chermes of the alder (*chermes alni*) in great abundance on the branches of that tree, which for that reason looks quite white, and at a distance appears as it were covered with mould.

Oct. 4th. I continued my journey early in the morning, and the country still had the same appearance as I went on. It was a continual chain of pretty high hills, with an easy ascent on all sides, and of vallies been them. The soil consisted of a brick-coloured mould, mixed with clay and a few pebbles. I rode sometimes through woods of several sorts of trees, and sometimes amidst little fields, which had been cleared of the wood, and which at present were corn-fields, meadows, and pastures. The farm-houses stood single, sometimes near the roads, and sometimes at a little distance from them, so that the space between the road and the houses was taken up with little fields and meadows. Some of the houses were built of stone, two stories high, and covered with shingles of the white cedar. But most of the houses were wooden, and the crevices stopped up with clay, instead of moss, which we make use of for that purpose. No valves were to be met with in the chimneys, and the people even did not know what I meant by them. The ovens were commonly built up at some distance from the houses, and were either under a roof, or without any covering against the weather. The fields bore partly buck-wheat, which was not yet cut, partly maize, and partly wheat, which was but lately sown; but sometimes they lay fallow. The vines climbed to the top of several trees, and hung down again on both sides. Other trees again were surrounded by the ivy (*hedera quinquefolia*) which, with the same flexibility, ascended to a great height. The *smilax laurifolia* always joined with the ivy, and, together with it, twisted itself round the trees. The leaves of the ivy were at this time commonly reddish, but those of the vine were still quite green. The trees which were surrounded with them, looked at a distance like those which are covered with hops in our country; and on seeing them from afar off, one might expect to find wild hops climbing upon the trees. Walnut and chestnut-trees were common near enclosures, in woods, and on hills, and at present were loaded with their fruit. The persimon was likewise plentiful near the roads and in the woods. At some distance from Wilmington, I passed a bridge over a little river, which falls north into the Delaware. The rider pays here two-pence toll for himself and his horse.

Towards noon I arrived at Wilmington.

Wilmington is a little town, about thirty English miles south-west from Philadelphia. It was founded in the year 1733. Part of it stands upon the grounds belonging to the Swedish church, which annually receives certain rents, out of which they pay the minister's salary, and employ the rest for other uses. The houses are built of stone, and look very pretty; yet they are not built close together, but large open places are left between them. The quakers have a meeting-house in this town. The Swedish church, which I intend to mention in the sequel, is half a mile out of town eastwards. The parsonage is under the same roof with the church. A little river called Christina-kill passes by the town, and from thence falls into the Delaware. By following its banks, one goes three miles before one reaches the Delaware. The river is said to be suffi-

ciently

ciently deep, so that the greatest vessel may come quite up to the town ; for at its mouth or juncture with the Delaware it is shallowest, and yet its depth even there, when the water is lowest, is from two fathoms to two and a half. But as you go higher, its depth encreases to three, three and a half, and even four fathoms. The largest ships therefore may safely, and with their full cargoes, come to and from the town with the tide. From Wilmington you have a fine prospect of a great part of the river Delaware, and the ships sailing on it. On both sides of the river Christina-kill, almost from the place where the redoubt is built to its juncture with the Delaware, are low meadows, which afford a great quantity of hay, to the inhabitants. The town carries on a considerable trade, and would have been more enlarged if Philadelphia and Newcastle, which are both towns of a more ancient date, were not so near on both sides of it.

The redoubt, upon the river Christina-kill, was erected this summer, when it was known that the French and Spanish privateers intended to sail up the river, and to attempt a landing. It stands, according to the accounts of the late Rev. Mr. Tranberg, on the same spot where the Swedes had built theirs. It is remarkable, that on working in the ground this summer, to make this redoubt, an old Swedish silver coin of Queen Christina, not quite so big as a shilling, was found, at the depth of a yard, among some other things. The Rev. Mr. Tranberg afterwards presented me with it. On one side were the arms of the house of Wasa, with the inscription : CHRISTINA, D. G. DE. RE. SVE. that is, *Christina, by the grace of God, elected Queen of Sweden*; and near this the year of our Lord 1633. On the reverse were these words : MONETA NOVA REGNI SVEC. or, *a new coin of the kingdom of Sweden*. At the same time, a number of old iron tools, such as axes, shovels, and the like, were discovered. The redoubt, that is now erected, consists of bulwarks of planks, with a rampart on the outside. Near it is the powder magazine, in a vault built of bricks. At the erection of this little fortification, it was remarkable, that the Quakers, whose tenets reject even defensive war, were as busy as the other people in building it. For the fear of being every moment suddenly attacked by privateers conquered all other thoughts. Many of them scrupled to put their own hands to the work, but forwarded it by supplies of money, and by getting ready every thing which was necessary.

Oct. 5th. It was my design to cross the Delaware, and to get into New Jersey, with a view to get acquainted with the country ; but as there was no ferry here to bring my horse over, I set out on my return to Philadelphia. I partly went along the high road, and partly deviated on one or the other side of it, in order to take more exact observations of the country, and of its natural history.

The maize was sown in several places. In some its stalks were cut somewhat below the ear, dried, and put up in narrow high stacks, in order to keep them as a food for the cattle in winter. The lower part of the stalk had likewise leaves, but as they commonly dry of themselves, the people do not like to feed the cattle with them, all their flavour being lost ; but the upper ones are cut whilst they are yet green.

The valleys between the hills commonly contain brooks ; but they are not very broad, and require no bridges, so that carriages and horse can easily pass through them ; for the water is seldom above six inches deep.

The leaves of most trees were yet quite green, such as those of oaks, chestnut-trees, black walnut-trees, hiccory, tulip-trees, and sassafras. The two latter species are found in plenty on the sides of the little woods, on hills, on the fallow fields, near hedges, and on the road. The persimon likewise had still its leaves ; however, some trees of this kind had dropt them. The leaves of the American bramble were at present
almost

almost entirely red, though some of these bushes yet retained a lively green in the leaves. The cornelian cherry likewise had already a mixture of brown and pale leaves. The leaves of the red maple were also red.

I continued my journey to Chichester, a borough upon the Delaware, where travellers pass the river in a ferry. They build here every year a number of small ships for sale. From an iron work which lies higher in the country, they carry iron bars to this place, and ship them.

Canoes are boats made of one piece of wood, and are much in use with the farmers, and other people upon the Delaware, and some little rivers. For that purpose a very thick trunk of a tree is hollowed out: the red juniper, or red cedar-tree, the white cedar, the chefnut-tree, the white oak, and the tulip-tree, are commonly made use of for this purpose. The canoes made of red and white cedar are reckoned the best, because they swim very light upon the water, and last twenty years together. But of these the red cedar canoes are most preferable. Those made of chefnut-trees will likewise last for a good while. But those of white oak are hardly serviceable above six years, and also swim deep, because they are so heavy. The liquidambar tree, or liquidambar styraciflua, Linn. is big enough, but unfit for making canoes, because it imbibes the water. The canoes which are made of the tulip-tree, scarce last so long as those of white oak. The size of the canoes is different, according to the purposes they are destined for. They can carry six persons, who, however, must by no means be unruly, but sit at the bottom of the canoe in the quietest manner possible, lest the boat overfet. The Swedes in Pensylvania and New Jersey, near the rivers, have no other boats to go to Philadelphia in, which they commonly do twice a week on the market days, though they be several miles distant from the town, and meet sometimes with severe storms; yet misfortunes from the overfetting, &c. of these canoes, are seldom heard of, though they might well be expected, on account of the small size of this kind of boats. However, a great deal of attention and care is necessary in managing the canoes, when the wind is somewhat violent; for they are narrow, round below, have no keel, and therefore may easily be overfet. Accordingly, when the wind is more brisk than ordinary the people make for the land.

The common garden cresses grow in several places on the roads about Chichester, and undoubtedly come from the seeds, which were by chance carried out of the many gardens about that town.

The American brambles are here in great plenty. When a field is left uncultivated, they are the first plants that appear on it; and I frequently observed them in such fields as are annually ploughed, and have corn sown on them. For when these bushes are once rooted, they are not easily extirpated. Such a bush runs out tendrils sometimes four fathoms off its root, and then throws a new root, so that on pulling it up, you meet with roots on both ends. On some old grounds, which had long been uncultivated, there were so many bushes of this kind, that it was very troublesome and dangerous walking in them. A wine is made of the berries, as I have already mentioned. The berries are likewise eaten when they are ripe, and taste well.

Oct. 6th. The chenopodium entelminticum is very plentiful on the road, and on the banks of the river, but chiefly in dry places, in a loose sandy soil. The English, who are settled here, call it worm-seed, and Jerusalem oak. It has a disagreeable scent. In Pensylvania and New Jersey its seeds are given to children, against the worms, and for that purpose they are excellent. The plant itself is spontaneous in both provinces.

The environs of Chichester contain many gardens, which are full of apple-trees, sinking under the weight of innumerable apples. Most of them are winter fruit, and therefore were yet quite four. Each farm has a garden, and so has each house of the better sort. The extent of these gardens is likewise not inconsiderable, and therefore affords the possessor, all the year long, great supplies in his housekeeping, both for eating and drinking. I frequently was surprized at the prudence of the inhabitants of this country. As soon as one has bought a piece of ground, which is neither built upon nor sown, his first care is to get young apple-trees, and to make a garden. He next proceeds to build his house, and lastly prepares the uncultivated ground to receive corn. For it is well known that the trees require many years before they arrive to perfection, and this makes it necessary to plant them first. I now perceived, near the farms, mills, wheels, and other instruments, which are made use of in crushing the apples, in order to prepare cyder from them afterwards.

From Chichester I went on towards Philadelphia. The oaks were the most plentiful trees in the wood. But there were several species of them, all different from the European ones. The swine now went about in great herds in the oak woods, where they fed upon the acorns, which fell in great abundance from the trees. Each hog had a wooden triangular yoke about its neck, by which it was hindered from penetrating through the holes in the enclosures; and, for this reason, the enclosures are made very slender, and easy to put up, and do not require much wood. No other enclosures are in use, but those which are so like sheep-hurdles. A number of squirrels were in the oak woods, partly running on the ground, and partly leaping from one branch to another; and at this time they chiefly fed upon acorns.

I seldom saw beech-trees; but I found them quite the same with the European ones. Their wood is reckoned very good for making joiner's planes of.

I do not remember seeing any other than the black ants, or *formica nigra*, in Pennsylvania. They are as black as a coal, and of two sorts; some very little, like the least of our ants, and others of the size of our common reddish ants. I have not yet observed any hills of theirs, but only seen some running about singly. In other parts of America I have likewise found other species of ants, as I intend to remark in the sequel.

The common privet, or *ligustrum vulgare*, is made use of in many places, as a hedge round corn-fields and gardens; and on my whole voyage, I did not see that any other trees were made use of for this purpose, though the Englishmen here well know that the hawthorn makes a much better hedge. The privet hedges grow very thick and close, but, having no spines, the hogs, and even other animals, break easily through them; and when they have once made a hole, it requires a long while before it grows up again. But when the hedges consist of spinose bushes, the cattle will hardly attempt to get through them.

About noon I came through Chester, a little market-town, which lies on the Delaware. A rivulet, coming down out of the country, passes through this place, and discharges itself into the Delaware. There is a bridge over it. The houses stand dispersed. Most of them are built of stone, and two or three stories high; some are however made of wood. In the town is a church and a market-place.

Wheat was now sown every where. In some places it was already green, having been sown four weeks before. The wheat fields were made in the English manner, having no ditches in them, but numerous furrows for draining the water, at the distance of four or six feet from one another. Great stumps of the trees which had
been

been cut down, are every where seen on the fields; and this shews that the country has been but lately cultivated.

The roots of the trees do not go deep into the ground, but spread horizontally. I had opportunities of observing this in several places where the trees were dug up, for I seldom saw one whose root went above a foot deep into the ground, though it was a loose soil.

About two English miles behind Chester, I passed by an iron forge, which was to the right hand by the road side. It belonged to two brothers, as I was told. The ore however is not dug here, but thirty or forty miles from hence, where it is first melted in the oven, and then carried to this place. The bellows were made of leather, and both they and the hammers, and even the hearth, but small in proportion to ours. All the machines were worked by water. The iron was wrought into bars.

To-day I remarked, as I have since frequently seen on my travels in this country, that horses are very greedy of apples. When they are let into an orchard to feed upon the grass, if there are any apples on the ground, they frequently leave the fresh green grass and eat the apples, which, however, are not reckoned a good food for them; and, besides that, it is too expensive.

The red maple, or *acer rubrum*, is plentiful in these places. Its proper situations are chiefly swampy, wet places, in which the alder commonly is its companion. Out of its wood they make plates, spinning-wheels, rolls, feet for chairs and beds, and all sorts of work. With the bark they dye both worsted and linen, giving it a dark blue colour. For that purpose it is first boiled in water, and some copperas, such as the hat-makers and shoe-makers commonly make use of, is added, before the stuff (which is to be dyed) is put into the boiler. This bark likewise affords a good black ink. When the tree is felled early in spring, a sweet juice runs out of it, like that which runs out of our birches. This juice they do not make any use of here; but, in Canada, they make both treacle and sugar of it. Here is a variety of this tree, which they call the curled maple, the wood being as it were marbled within; it is much used in all kinds of joiner's work, and the utensils made of this wood are preferable to those made of any other sort of wood in the country, and are much dearer than those made of the wood of the wild cherry-trees (*prunus virginiani*) or of black walnut-trees. But the most valuable utensils were those made of curled black walnut, for that is an excessive scarce kind of wood. The curled maple was likewise very uncommon, and you frequently find trees, whose outsides are marbled but their inside not. The tree is therefore cut very deep before it is felled, to see whether it has veins in every part.

In the evening I reached Philadelphia.

Oct. 7th. In the morning we crossed the Delaware in a boat to the other side, which belongs to New Jersey, each person paying fourpence for his passage. The country here is very different from that in Pennsylvania; for here the ground is almost mere sand; but in the other province it is mixed with a good deal of clay, and this makes the ground pretty rich. The discoveries which I made to-day of insects and plants I intend to mention in another work.

A soil like this in New Jersey, one might be led to think, could produce nothing, because it is so dry and poor. Yet the maize, which is planted on it, grows extremely well, and we saw many fields filled with it. The earth is of that kind in which tobacco commonly succeeds, but it is not near so rich. The stalks of maize are commonly eight feet high, more or less, and are full of leaves. The maize is planted, as usual, in rows, in little squares, so that there is a space of five feet and six inches

inches between each square, both in length and breadth; on each of these little hills three or four stalks come up, which were not yet cut for the cattle; each stalk again has from one to four ears, which are large and full of corn. A sandy ground could never have been better employed. In some places the ground between the maize is ploughed, and rye sown in it, so that when the maize is cut, the rye remains upon the field.

We frequently saw asparagus growing near the enclosures, in a loose soil, on uncultivated sandy fields. It is likewise plentiful between the maize, and was at present full of berries, but I cannot tell whether the seeds are carried by the wind to the places where I saw them; it is however certain, that I have likewise seen it growing wild in other parts of America.

The worm-feed is likewise plentiful on the road, in a sandy ground, such as that near the ferry, opposite to Philadelphia. I have already mentioned that it is given to children, as a remedy to carry off the worms. It is then put into brandy, and when it has been in it for one hour, it is taken out again, dried, and given to the children, either in beer, sweetened with treacle, or in any other liquor. Its effects are talked of differently. Some people say it kills the worms; others again pretend that it forwards their increase. But I know, by my own experience, that this worm-feed has had very good effects upon children.

The purslain, which we cultivate in our gardens, grows wild in great abundance in the loose soil, amongst the maize. It was there creeping on the ground, and its stalks were pretty thick and succulent; which circumstances very justly gave reason to wonder from whence it could get juice sufficient to supply it in such a dry ground. It is to be found plentiful in such soil, in other places of this country.

The *bidens bipinnata* is here called Spanish needles. It grows single about farm-houses, near roads, pales, and along the hedges. It was yet partly in flower; but for the greatest part it was already out of blossom. When the seeds are ripe it is very disagreeable walking where it grows, for they stick to the clothes and make them black; and it is difficult to discharge the black spots which they occasion. Each seed has three spines at its extremity; and each of these again is full of numerous little hooks, by which the seed fastens itself to the clothes.

In the woods and along the hedges in this neighbourhood, some single red ants (*formica rubra*) crept about, and their antennæ or feel-horns, were as long as their bodies.

Towards night we returned to Philadelphia.

Oct. 8th. The shore of Pennsylvania has a great quantity of the finest oysters. About this time the people began to bring them to Philadelphia for sale. They come from that part of the shore which is near the mouth of the river Delaware. They are reckoned as good as the New York oysters, of which I shall make more particular mention afterwards. However, I thought that this latter sort of oysters was generally larger, fatter, and more palatable. It is remarkable that they commonly became palatable at the time when the agues had left off their fury. Some men went with whole carts full of oysters, crying them about the streets; this is unusual here when any thing else is to be sold, but in London it is very common. The oyster shells are thrown away, though formerly a lime was burnt from them, which has been found unnecessary, there being stones for burning of lime in this neighbourhood, and the lime of oyster shells not being as good as this other lime. The people shewed me some houses in this town which are built of stone, and to the mason work of which the lime of oyster shells had been employed. The walls of these houses were always so wet

two or three days before a rain, that great drops of water could plainly be perceived, on them; and thus they were as good as hygrometers*. Several people who had lived in this kind of houses complained of these inconveniences.

Oct. 9. Pease are not much cultivated in Pennsylvania at present, though formerly, according to the accounts of some old Swedes, every farmer had a little field with pease. In New Jersey, and the southern parts of New York, pease are likewise not so much cultivated as they used to be. But in the northern parts of New York, or about Albany, and in all the parts of Canada, which are inhabited by the French, the people sow great quantities, and have a plentiful crop. In the former colonies, a little despicable insect has obliged the people to give up so useful a part of agriculture. This little insect was formerly little known, but a few years ago it multiplied excessively. It couples in summer, about the time when the pease are in blossom, and then deposits an egg into almost every one of the little pease. When the pease are ripe, their outward appearance does not discover the worm, which, however, is found within when it is cut. This worm lies in the pea, if it is not stirred, during all the winter, and part of the spring, and in that space of time consumes the greatest part of the inside of the pea: in spring, therefore, little more than the mere thin outward skin is left. This worm at last changes into an insect of the coleoptera class, and in that state creeps through a hole of its own making in the husk, and flies off, in order to look for new fields of pease, in which it may couple with its cogenetic insects, and provide food sufficient for its posterity.

This noxious insect has spread from Pennsylvania to the north. For the country of New York, where it is common at present, has not been plagued with it above twelve or fifteen years ago; and before that time the people sowed pease every year, without any inconvenience, and had excellent crops. But by degrees these little enemies came in such numbers that the inhabitants were forced to leave off sowing of pease. The people complained of this in several places. The country people about Albany have yet the pleasure to see their fields of pease not infected by these beetles, but are always afraid of their approach; as it has been observed they come every year nearer to that province.

I know not whether this insect would live in Europe, and I should think our Swedish winters must kill the worm, even if it be ever so deeply inclosed in the pea; notwithstanding it is often as cold in New York (where this insect is so abundant) as in our country, yet it continues to multiply here every year, and proceeds always farther to the north. I was very near bringing some of these vermin into Europe without knowing of it. At my departure from America I took some sweet pease with me in a paper, and they were at that time quite fresh and green; but on opening the paper, after my arrival at Stockholm, on August the 1st, 1751, I found all the pease hollow, and the head of an insect peeping out of each. Some of these insects even crept out, in order to try the weather of this new climate; but I made haste to shut the paper again, in order to prevent the spreading of this noxious insect†. I own, that when I first per-

* As the shells of oysters are a marine animal production, and their cavities are full of particles of seawater, the moisture of it flies off, leaving behind its salt; when the shells are burnt, and the lime is slacked, the salt mixes with the lime; and though the mortar of such a lime grows ever so dry, the particles of salt immediately attract the moisture of the air, and cause that dampness complained of here. F.

† Though Mr. Kalm has so carefully avoided peopling Europe with this insect, yet Dr. Linnæus assures us, in his *Système Naturæ*, that the southern countries of Europe are already infested with it; Scopoli mentions it among his *insecta carniolica*, p. 63. and Geoffroy, among his *Parisian insects*, vol. i. p. 267. t. 4. f. 9. has given a fine figure of it. F.

ceived them, I was more frightened than I should have been at the sight of a viper. For I at once had a full view of the whole damage, which my dear country would have suffered, if only two or three of these noxious insects had escaped me. The posterity of many families, and even the inhabitants of whole provinces, would have had sufficient reason to detest me, as the cause of so great a calamity. I afterwards sent some of them, though well secured, to Count Tessin, and to Dr. Linnæus, together with an account of their destructive qualities. Dr. Linnæus has already inserted a description of them in an academical dissertation, which has been drawn up under his presidency, and treats of the damages made by insects*. He there calls this insect the *Bruchus* of North America†. It was very peculiar that every pea in the paper was eaten without exception.

When the inhabitants of Pennsylvania sow pease procured from abroad, they are not commonly attacked by these insects for the first year; but in the next they take possession of the pea. It is greatly to be wished that none of the ships which annually depart from New York or Pennsylvania, may bring them into the European countries. From hence the power of a single despicable insect will plainly appear; as also, that the study of the œconomy and of the qualities of insects is not to be looked upon as a mere pastime and useless employment‡.

The *rhus radicans* is a shrub or tree which grows abundantly in this country, and has in common with the ivy, called *hedera arborea*, the quality of not growing without the support either of a tree, a wall, or a hedge. I have seen it climbing to the very top of high trees in the woods, and its branches shoot out every where little roots, which fasten upon the tree, and as it were enter into it. When the stem is cut, it emits a pale brown sap of a disagreeable scent. This sap is so sharp that the letters and characters made upon linen with it cannot be got out again, but grow blacker the more the cloth is washed. Boys commonly marked their names on their linen with this juice. If you write with it on paper the letters never go out, but grow blacker from time to time.

This species of sumach has the same noxious qualities as the poisonous sumach, or poison-tree, which I have above described, being poisonous to some people, though not to every one. Therefore all that has been said of the poison-tree is likewise applicable to this; excepting that the former has the stronger poison. However, I have seen people who have been as much swelled from the noxious exhalations of the latter, as they could have been from those of the former. I likewise know, that of two sisters, the one could manage the tree without being affected by its venom, though the other immediately felt it as soon as the exhalations of the tree came near her, or whenever she came a yard too near the tree, and even when she stood in the way of the wind, which blew directly from this shrub. But upon me this species of sumach has never exerted its power; though I made above a hundred experiments upon myself with the greatest stems, and the juice once squirted into my eye, without doing me any harm. On another person's hand, which I had covered very thick with it, the skin, a few hours after, became as hard as a piece of tanned leather, and peeled off in the following days, as if little scales fell from it.

* *Diff. de Noxa Insectorum*, Amœn. Acad. vol. 3. p. 347.

† In his *Systema Naturæ*, he calls it *bruchus pisi*, or the pease beetle; and says, that the *gracula quiscalis*, or purple daw of Catesby, is the greatest destroyer of them, and though this bird has been proscribed by the legislature of Pennsylvania, New Jersey, and New England, as a maize-thief, they feel however the imprudence of extirpating this bird: for a quantity of worms, which formerly were eaten by these birds, destroy their meadows at present. F.

‡ If the pease were steeped, before they are sown, in a lye of lime water and some dissolved arsenic, the pupa or aurelia of the insect would be killed. F.

Oct. 10th. In the morning I accompanied Mr. Cock to his country seat.

Though the woods of Pennsylvania afford many oaks, and more species of them than are found further north, yet they do not build so many ships in this province as they do in the northern ones, and especially in New England. But experience has taught the people that the same kind of trees is more durable the further it grows to the north, and that this advantage decreases the more it grows in warm climates. It is likewise plain that the trees in the south grow more every year, and form thicker ringlets, than those in the north. The former have likewise much greater tubes for the circulation of the sap than the latter. And for this reason they do not build so many ships in Pennsylvania, as they do in New England, though more than in Virginia and Maryland; but Carolina builds very few, and its merchants get all their ships from New England. Those which are here made of the best oak hardly are serviceable above ten or at most twelve years; for then they are so rotten that nobody ventures to go to sea in them. Many captains of ships come over from England to North America, in order to get ships built. But most of them choose New England, that being the most northerly province; and if they even come over in ships which are bound for Philadelphia, they frequently, on their arrival, set out from Pennsylvania for New England. The Spaniards in the West Indies are said to build their ships of a peculiar sort of cedar, which holds out against putrefaction and wet; but it is not to be met with on the continent in the English provinces. Here are above nine different sorts of oak, but not one of them is comparable to the single species we have in Sweden, with regard to its goodness. And therefore a ship of European oak costs a great deal more than one made of American oak.

Many people who chiefly employed themselves in gardening, had found, in a succession of years, that the red beet, which grew out of the seed which was got from New York, became very sweet, and had a very fine taste; but that it every year lost part of its goodness, if it was cultivated from seeds which were got here. The people were therefore obliged to get as many seeds of red beet every year from New York, as were wanted in their gardens. It has likewise been generally observed, that the plants which are produced from English seeds are always much better and more agreeable than those which come from seeds of this country.

In the garden of Mr. Cock was a radish, which was in the loose soil grown so big as to be seven inches in diameter. Every body that saw it, owned it was uncommon to see them of such a size.

That species of convolvulus which is commonly called batatas, has here the name of Bermudian potatoes. The common people, and the gentry without distinction, planted them in their gardens. This is done in the same manner as with the common potatoes. Some people made little hillocks, into which they put these potatoes; but others only planted them in flat beds. The soil must be a mixture of sand and earth, and neither too rich nor too poor. When they are going to plant them, they cut them as the common potatoes, taking care however that a bud or two be left on each piece which is intended to be planted. Their colour is commonly red without and yellow within. They are bigger than the common sort, and have a sweet and very agreeable taste which I cannot find in the other potatoes, in artichokes, or in any other root; and they almost melt in the mouth. It is not long since they have been planted here. They are dressed in the same manner as common potatoes, and eaten either along with them, or by themselves. They grow very fast and very well here; but the greatest difficulty consists in keeping them over winter, for they will bear neither cold nor a great heat, nor wet. They must therefore be kept, during winter, in a box

with sand, in a warm room. In Pennsylvania, where they have no valves in their chimnies, they are put in such a box with sand, at some distance from the fire, and there they are secured both against frost and against over great heat. It will not answer the purpose to put them into dry sand in a cellar, as is commonly done with the common sort of potatoes; for the moisture which is always in cellars, penetrates the sand, and makes them putrify. It would probably be very easy to keep them in Sweden in warm rooms, during the cold season. But the difficulty lies wholly in bringing them over to Sweden. I carried a considerable number of them with me on leaving America, and took all possible care in preserving them, but we had a very violent storm at sea, by which the ship was so greatly damaged that the water got in every where, and wetted our cloaths, beds, and other moveables so much, that we could wring the water out of them. It is therefore no wonder that my Bermuda potatoes were rotten; but as they are now cultivated in Portugal and Spain, nay even in England, it will be easy to bring them into Sweden. The drink which the Spaniards prepare from these potatoes, in their American possessions, is not usual in Pennsylvania. *

Mr. Cock had a paper-mill, on a little brook, and all the coarser sorts of paper are manufactured in it. It is now annually rented for fifty pounds Pennsylvania currency.

Oct. 11th. I have already mentioned that every countryman has a greater or lesser number of apple-trees planted round his farm-house, from whence he gets great quantities of fruit, part of which he sells, part he makes cyder of, and part he uses in his own family for pies, tarts, and the like. However, he cannot expect an equal quantity of fruit every year; and I was told, that this year had not by far afforded such a great quantity of apples as the preceding; the cause of which they told me, was the continual and great drought in the month of May, which had hurt all the blossoms of the apple trees, and made them wither. The heat had been so great as to dry up all the plants, and the grass in the fields.

The polytrichum commune, a species of moss, grew plentifully on wet and low meadows between the woods, and in several places quite covered them, as our mosses cover the meadows in Sweden. It was likewise very plentiful on hills.

Agriculture was in a very bad state hereabouts. When a person had bought a piece of land, which perhaps had never been ploughed since the creation, he cut down part of the wood, tore up the roots, ploughed the ground, sowed corn on it, and the first time got a plentiful crop. But the same land being tilled for several years successively without being manured, it at last must of course lose its fertility. Its possessor therefore leaves it fallow, and proceeds to another part of this ground, which he treats in the same manner. Thus he goes on till he has changed a great part of his possessions into corn-fields, and by that means deprives the ground of its fertility. He then returns to the first field, which now is pretty well recovered; this he again tills as long as it will afford him a good crop, but when its fertility is exhausted, he leaves it fallow again, and proceeds to the rest as before.

It being customary here to let the cattle go about the fields and in the woods both day and night, the people cannot collect much dung for manure, but by leaving the land fallow for several years together, a great quantity of weeds spring up in it, and get such strength, that it requires a considerable time to extirpate them. From hence it likewise comes, that the corn is always so much mixed with weeds. The great richness of the

* Mr. Miller describes this liquor in his Gardener's Dictionary, under the article of Convolvulus, species the 17th and 18th. F.

soil, which the first European colonists found here, and which had never been ploughed before, has given rise to this neglect of agriculture, which is still observed by many of the inhabitants. But they do not consider, that when the earth is quite exhausted, a great space of time, and an infinite deal of labour is necessary to bring it again into good order; especially in these countries which are almost every summer so scorched up by the excessive heat and drought. The soil of the corn fields consisted of a thin mould, greatly mixed with a brick coloured clay, and a quantity of small particles of glimmer. This latter came from the stones which are here almost every where to be met with at the depth of a foot or thereabouts. These little pieces of glimmer made the ground sparkle when the sun shone upon it.

Almost all the houses hereabouts were built either of stone or bricks: but those of stone were more numerous. Germantown, which is about two English miles long, had no other houses, and the country houses thereabouts were all built of stone. But there are several varieties of that stone which is commonly made use of in building. Sometimes it consisted of a black or grey glimmer, running in undulated veins, the spaces between their bendings being filled up with a grey, loose, small-grained limestone, which was easily friable. Some transparent particles of quartz were scattered in the mass, of which the glimmer made the greatest part. It was very easy to be cut, and with proper tools could readily be shaped into any form. Sometimes however the pieces consisted of a black, small-grained glimmer, a white small-grained sandstone, and some particles of quartz, and the several constituent parts were well mixed together; and sometimes the stone had broad stripes of the white limestone without any addition of glimmer, but most commonly they were much blended together, and of a grey colour. Sometimes this stone was found to consist of quite fine and black pieces of glimmer, and a grey, loose, and very small-grained limestone. This was likewise very easy to be cut, being loose.

These varieties of the stone are commonly found close together. They were every where to be met with, at a little depth, but not in equal quantity and goodness; and not always easy to be broken. When therefore a person intended to build a house, he enquired where the best stone could be met with. It is to be found on corn fields and meadows, at a depth which varies from two to six feet. The pieces were different as to size. Some were eight or ten feet long, two broad, and one thick. Sometimes they were still bigger, but frequently much less. Hereabouts they lay in strata one above another, the thickness of each stratum being about one foot. The length and breadth were different, but commonly such as I have before mentioned. They must commonly dig three or four feet before they reach the first stratum. The loose ground above that stratum is full of little pieces of this stone. This ground is the common brick-coloured soil, which is universal here, and consists of sand and clay, though the former is more plentiful. The loose pieces of glimmer which shine so much in it, seem to have been broken off from the great strata of stone.

It must be observed that when the people build with this stone, they take care to turn the flat side of it outwards. But as that cannot always be done, the stone being frequently rough on all sides, it is easily cut smooth with tools, since it is soft, and not very difficult to be broken. The stones however are unequal in thickness, and therefore by putting them together they cannot be kept in such straight lines as bricks. It sometimes likewise happens that pieces break off when they are cut, and leave holes on the outside of the wall. But in order to fill up these holes, the little pieces of stone which cannot be made use of are pounded, mixed with mortar, and put into the holes; the places thus filled up, are afterwards smoothed, and when they are dry, they are hardly

hardly distinguishable from the rest, at some distance. At last they draw, on the outside of the wall, strokes of mortar, which cross each other perpendicularly, so that it looks as if the wall consisted wholly of equal square stones, and as if the white strokes were the places where they were joined with mortar. The inside of the wall is made smooth, covered with mortar, and white-washed. It has not been observed that this kind of stone attracts the moisture in a rainy or wet season. In Philadelphia and its environs, you find several houses built of this kind of stone.

The houses here are commonly built in the English manner.

One of Mr. Cock's negroes shewed me the skin of a badger (*ursus meles*) which he had killed a few days ago, and which convinced me that the American badger is the same with the Swedish one: it was here called ground-hog.

Towards night I returned to Philadelphia.

Oct. 12th. In the morning we went to the river Skunkill, partly to gather seeds, partly to collect plants for the herbal, and to make all sorts of observations. The Skunkill is a narrow river, which falls into the Delaware, about four miles from Philadelphia to the south; but narrow as it is, it rises on the west side of those high mountains commonly called the Blue Mountains, and runs two hundred English miles, and perhaps more. It is a great disadvantage to this country, that there are several cataracts in this river as low as Philadelphia, for which reason there can be no navigation on it. To-day I made some descriptions and remarks on such plants as the cattle liked, or such as they never touched.

I observed several little subterraneous walks in the fields, running under ground in various directions, the opening of which was big enough for a mole: the earth, which formed as it were a vault above it, and lay elevated like a little bank, was near two inches high, full as broad as a man's hand, and about two inches thick. In uncultivated fields I frequently saw these subterraneous walks, which discovered themselves by the ground thrown up above them, which when trod upon gave way, and made it inconvenient to walk in the field.

These walks are inhabited by a kind of mole*, which I intend to describe more accurately in another work. Their food is commonly roots: I have observed the following qualities in one which was caught. It had greater stiffness and strength in its legs than I ever observed in other animals, in proportion to their size. Whenever it intended to dig, it held its legs obliquely like oars. I laid my handkerchief before it, and it began to stir in it with the snout, and taking away the handkerchief to see what it had done to it, I found that in the space of a minute it had made it full of holes, and it looked as if it had been pierced very much by an awl. I was obliged to put some books on the cover of the box in which I kept this animal, or else it was flung off immediately. It was very irascible, and would bite great holes into any thing that was put in its way; I held a steel pen-case to it, it at first bit at it with great violence, but having felt its hardness, it would not venture again to bite at any thing. These moles do not make such hills as the European ones, but only such walks as I have already described.

Oct. 13th. There is a plant here, from the berries of which they make a kind of wax or tallow, and for that reason the Swedes call it the tallow-shrub. The English call the same tree the candleberry-tree, or bayberry-bush; and Dr. Linnæus gives it the name of *myrica cerifera*; it grows abundantly on a wet soil, and seems to thrive

* This animal is probably the *forex cristatus* of Dr. Linnæus, who says it is like the mole, and lives in Pennsylvania. F.

particularly well in the neighbourhood of the sea, nor have I ever found it high up in the country far from the sea. The berries grow abundantly on the female shrub, and look as if flour had been strewed upon them. They are gathered late in autumn, being ripe about that time, and are then thrown into a kettle or pot full of boiling water; by this means their fat melts out, floats at the top of the water, and may be skimmed off into a vessel; with the skimming, they go on till there is no tallow left. The tallow, as soon as it is congealed, looks like common tallow or wax, but has a dirty green colour; it is for that reason melted over again and refined; by which means it acquires a fine and transparent green colour; this tallow is dearer than common tallow, but cheaper than wax. In Philadelphia they pay a shilling Pennsylvania currency, for a pound of this tallow; but a pound of common tallow only came to half that money, and wax costs as much again. From this tallow they make candles in many parts of this province, but they usually mix some common tallow with it. Candles of this kind do not easily bend, nor melt in summer as common candles do; they burn better and slower, nor do they cause any smoke, but rather yield an agreeable smell, when they are extinguished. An old Swede, of ninety-one years of age, told me, that this sort of candles had formerly been much in use with his countryman. At present they do not make so many candles of this kind, if they can get the tallow of animals; it being too troublesome to gather the berries. However, these candles are made use of by poor people, who live in the neighbourhood of a place where the bushes grow, and have not cattle enough to kill, in order to supply them with a sufficient quantity of tallow. From the wax of the candleberry-tree they likewise make a soap here, which has an agreeable scent, and is the best for shaving. This wax is likewise used by doctors and surgeons, who reckon it exceedingly good for plasters upon wounds. A merchant of this town once sent a quantity of these candles to those American provinces which had Roman Catholic inhabitants, thinking he would be well paid, since wax candles are made use of in the Roman Catholic churches; but the clergy would not take them. An old Swede mentioned that the root of the candleberry-tree was formerly made use of by the Indians, as a remedy against the tooth-ach, and that he himself having had the tooth-ach very violently, had cut the root in pieces and applied it round his tooth; and that the pain had been lessened by it. Another Swede assured me, that he had been cured of the tooth-ach, by applying the peel of the root to it. In Carolina they not only make candles out of the wax of the berries, but likewise sealing-wax.

Oct. 14th. Penny-royal is a plant which has a peculiar strong scent, and grows abundantly on dry places in the country; botanists call it *cunila pulegioides*. It is reckoned very wholesome to drink as a tea, when a person has got cold, as it promotes perspiration. I was likewise told, that on feeling a pain in any limb, this plant, if applied to it, would give immediate relief.

The goods which are shipped to London from New England are the following: all sorts of fish caught near Newfoundland and elsewhere; train-oil of several sorts; whalebone, tar, pitch, masts, new ships, of which a great number is annually built, a few hides, and sometimes some sorts of wood. The English islands in America, as Jamaica and Barbadoes, get from New England, fish, flesh, butter, cheese, tallow, horses, cattle; all sorts of lumber, such as pails, buckets, and hogsheds; and have returns made in rum, sugar, molasses, and other produces of the country, or in cash, the greatest part of all which they send to London (the money especially) in payment of the goods received from thence; and yet all this is insufficient to pay off the debt.

Oct. 15th. The alders grew here in considerable abundance on wet and low places, and even sometimes on pretty high ones, but never reached the height of the European alders, and commonly stood like a bush, about a fathom or two high. Mr. Bartram and other gentlemen who had frequently travelled in these provinces, told me, that the more you go to the south, the less are the alders; but that they are higher and taller, the more you advance to the north. I found afterwards myself, that the alders, in some places of Canada, are little inferior to the Swedish ones. Their bark is employed here in dying red and brown. A Swedish inhabitant of America told me, that he had cut his leg to the very bone, and that some coagulated blood had already been settled within; that he had been advised to boil the alder bark, and to wash the wound often with the water: that he followed this advice, and soon got his leg healed, though it had been very dangerous at first.

The *phytolacca decandra* was called poke by the English. The Swedes had no particular name for it, but made use of the English, with some little variation into *paok*. When the juice of its berries is put upon paper or the like, it strikes it with a high purple colour, which is as fine as any in the world: and it is pity that no method is as yet found out of making this colour last on woollen and linen cloth, for it fades very soon. Mr. Bartram mentioned, that having hit his foot against a stone, he had got a violent pain in it; he then bethought himself to put a leaf of the *phytolacca* on his foot, by which he lost the pain in a short time. The berries are eaten by the birds about this time. The English and several Swedes make use of the leaves in spring, when they are just come out, and are yet tender and soft, and eat them partly as green cake, and partly in the manner we eat spinnage. Sometimes they likewise prepare them in the first of these ways, when the stalks are already grown a little longer, breaking off none but the upper sprouts, which are yet tender, and not woody; but in this latter case, great care is to be taken, for if you eat the plant when it is already grown up, and its leaves are no longer soft, you may expect death as a consequence, which seldom fails to follow; for the plant has then got a power of purging the body to excess. I have known people, who, by eating great full-grown leaves of this plant, have got such a strong dysentery, that they were near dying with it; its berries however are eaten in autumn by children, without any ill consequence.

Woollen and linen cloth is dyed yellow with the bark of hiccory. This likewise is done with the bark of the black oak, or Linnæus's *quercus nigra*, and that variety of it which Catesby in his *Natural History of Carolina*, vol. i. tab. 19, calls *quercus marilandica*. The flowers and leaves of the *impatiens noli tangere*, or balsamine, likewise dyed all woollen stuffs with a fine yellow colour.

The *collinsonia canadensis* was frequently found in little woods and bushes, in a good rich soil. Mr. Bartram, who knew the country perfectly well, was sure that Pennsylvania, and all the parts of America in the same climate, were the true and original places where this plant grows; for further to the south, neither he nor Messrs. Clayton and Mitchel ever found it, though the latter gentlemen have made accurate observations in Virginia and part of Maryland; and from his own experience he knew that it did not grow in the northerly parts. I have never found it more than fifteen minutes north of forty-three degrees. The time of the year when it comes up in Pennsylvania is so late, that its seed has but just time sufficient to ripen in, and it therefore seems unlikely that it can succeed farther north. Mr. Bartram was the first who discovered it, and sent it over into Europe. Mr. Jussieu, during his stay at London, and Dr. Linnæus afterwards, called *collinsonia*, from the celebrated Mr. Peter Collinson, a merchant in London,

London, and fellow of the English and Swedish Royal Societies. He well deserved the honour of having a plant called after his name, for there are few people that have promoted natural history and all useful sciences with a zeal like his; or that have done as much as he towards collecting, cultivating, and making known all sorts of plants. The collinsonia has a peculiar scent, which is agreeable, but very strong. It always gave me a pretty violent head-ach whenever I passed by a place where it stood in plenty, and especially when it was in flower. Mr. Bartram was acquainted with a better quality of this plant, which was that of being an excellent remedy against all sorts of pain in the limbs, and against a cold, when the parts affected are rubbed with it; and Mr. Conrad Weisser, interpreter of the language of the Indians in Pennsylvania, had told him of a more wonderful cure with this plant. He was once among a company of Indians, one of which had been stung by a rattle-snake; the savages gave him over; but he boiled the collinsonia, and made the poor wretch drink the water, from which he happily recovered. Somewhat more to the north, and in New York, they call this plant horse-weed, because the horses eat it in spring, before any other plant comes up.

Oct. 16th. I asked Mr. Franklin, and other gentlemen who were well acquainted with this country, whether they had met with any signs, from whence they could have concluded, that any place which was now a part of the continent, had formerly been covered with water? and I got the following account in answer:

First, on travelling from hence to the south you meet with a place where the high road is very low in the ground between two mountains. On both sides you see nothing but oyster-shells and muscle-shells in immense quantities above each other; however the place is many miles off the sea.

Second, whenever they dig wells, or build houses in town, they find the earth lying in several strata above each other. At a depth of fourteen feet or more, they find globular stones, which are as smooth on the outside as those which lie on the sea-shore, and are made round and smooth by the rolling of the waves; and after having dug through the sand, and reached a depth of eighteen feet or more, they discover in some places a slime like that which the sea throws up on the shore, and which commonly lies at its bottom and in rivers: this slime is quite full of trees, leaves, branches, reed, charcoal, &c.

Third, it has sometimes happened that new houses have sunk on one side in a short time, and have obliged the people to pull them down again. On digging deeper, for a very hard ground to build upon, they have found a quantity of the above slime, wood, roots, &c.

Are not these reasons sufficient to make one suppose that those places in Philadelphia, which are at present fourteen feet and more under ground, formerly were the bottom of the sea, and that, by several accidents, sand, earth, and other things, were carried upon it? or, that the Delaware formerly was broader than it is at present? or, that it has changed its course? This last still often happens at present; the river breaking off the bank on one side, and forming one on the other. Both the Swedes and English often shewed me such places.

Oct. 18th. At present I did not find above ten different kinds of plants in blossom: they were, a gentiana, two species of aster, the common golden rod, or *solidago virga aurea*, a species of *hieracium*, the yellow wood-sorrel, or *oxalis corniculata*, the fox-gloves, or *digitalis purpurea*, the *hamamelis virginiana*, or witch hazel, our common millefoil, or *achillea millefolium*, and our dandelion, or *leontodon taraxacum*. All other plants had for this year laid aside their gay colours. Several trees, especially those which were to flower early in spring, had already formed such large buds, that on

opening them all the parts of fructification, such as calyx, corolla, stamina, and pistillum, were plainly distinguishable. It was therefore easy to determine the genus to which such trees belonged. Such were the red maple, or *acer rubrum*, and the *laurus æstivalis*, a species of bay. Thus nature prepared to bring forth flowers, with the first mild weather in the next year. The buds were at present quite hard, and all their parts pressed close together, that the cold might by all means be excluded.

The black walnut-trees had for the greatest part dropt their leaves, and many of them were entirely without them. The walnuts themselves were already fallen off. The green peel which enclosed them, if frequently handled, would yield a black colour, which could not be got off the fingers in two or three weeks time, though the hands were washed ever so much.

The *cornus florida* was called dog-wood by the English, and grew abundantly in the woods. It looks beautiful when it is adorned with its numerous great white flowers in spring. The wood is very hard, and is therefore made use of for weavers spools, joiners planes, wedges, &c. When the cattle fall down in spring for want of strength, the people tie a branch of this tree on their neck, thinking it will help them.

Oct. 19th. The tulip-tree grows every where in the woods of this country. The botanists call it *liriodendron tulipifera*, because its flowers, both in respect to their size, and in respect to their exterior form, and even in some measure with regard to their colour, resemble tulips. The Swedes call it canoe-tree, for both the Indians and the Europeans often make their canoes of the stem of this tree. The Englishmen in Pennsylvania give it the name of poplar. It is reckoned a tree which grows to the greatest height and thickness of any in North America, and which vies in that point with our greatest European trees. The white oak and the fir in North America, however, are little inferior to it. It cannot therefore but be very agreeable to see in spring, at the end of May (when it is in blossom), one of the greatest trees covered for a fortnight together with flowers, which, with regard to their shape, size, and partly colour, are like tulips; the leaves have likewise something peculiar; the English, therefore, in some places, call the tree the old woman's smock, because their imagination finds something like it below the leaves.

Its wood is here made use of for canoes, boards, planks, bowls, dishes, spoons, door-posts, and all sorts of joiners work. I have seen a barn of a considerable size, whose walls and roof were made of a single tree of this kind, split into boards. Some joiners reckoned this wood better than oak, because this latter frequently is warped, which the other never does, but works very easy; others again valued it very little. It is certain, that it contracts so much in hot weather, as to occasion great cracks in the boards, and in wet weather it swells so as to be near bursting, and the people hardly know of a wood in these parts which varies so much in contracting and expanding itself. The joiners, however, make much use of it in their work; they say there are two species of it; but they are merely two varieties, one of which, in time, turns yellow within; the other is white; the former is said to have a looser texture. The bark (like Russian glass) is divisible into very thin leaves, which are very tough like bast, though I have never seen it employed as such. The leaves, when crushed and applied to the forehead, are said to be a remedy against the head-ach. When horses are plagued with worms, the bark is pounded, and given them quite dry. Many people believe its roots to be as efficacious against the fever as the Jesuits bark. The trees grow in all sorts of dry soil, both on high and low grounds, but too wet a soil will not agree with them.

Oct.

Oct. 20th. The beaver-tree is to be met with in several parts of Pennsylvania and New Jersey, in a poor swampy soil, or on wet meadows. Dr. Linnæus calls it *magnolia glauca*; both the Swedes and English call it beaver-tree, because the root of this tree is the dainty of beavers, which are caught by its means; however, the Swedes sometimes gave it a different name, and the English as improperly called it swamp saffra, and white laurel. The trees of this kind dropt their leaves early in autumn, though some of the young trees kept them all the winter. I have seldom found the beaver-tree to the north of Pennsylvania, where it begins to flower about the end of May. The scent of its blossoms is excellent; for by it you can discover, within three quarters of an English mile, whether these little trees stand in the neighbourhood, provided the wind be not against it. For the whole air is filled with this sweet and pleasant scent. It is beyond description agreeable to travel in the woods about that time, especially towards night. They retain their flowers for three weeks, and even longer, according to the quality of the soil on which the trees stand; and, during the whole time of their being in blossom, they spread their odoriferous exhalations. The berries likewise look very fine when they are ripe, for they have a rich red colour, and hang in bunches on slender stalks. The cough, and other pectoral diseases, are cured by putting the berries into rum or brandy, of which a draught every morning may be taken; the virtues of this remedy were universally extolled, and even praised for their salutary effects in consumptions. The bark being put into brandy, or boiled in any other liquor, is said not only to ease pectoral diseases, but likewise to be of some service against all internal pains and heat; and it was thought that a decoction of it could stop the dysentery. Persons who had caught cold, boiled the branches of the beaver-tree in water, and drank it to their great relief. A Swede, called Lars Lack, gave the following account of a cure effected by this tree: one of his relations, an old man, had an open sore in his leg, which would not heal up again, though he had had much advice, and used many remedies. An Indian at last effected the cure in the following manner: he burnt some of this wood to charcoal, which he reduced to powder, mixed with the fresh fat of pork, and rubbed the open places several times. This dried up the holes, which before were continually open, and the legs of the old man were quite sound to his death. The wood is likewise made use of for joiners planes.

Oct. 22d. Upon trial it has been found that the following animals and birds, which are wild in the woods of North America, can be made nearly as tractable as domestic animals.

The wild cows and oxen, of which several people of distinction have got young calves from these wild cows, which are to be met with in Carolina, and other provinces to the south of Pennsylvania, and brought them up among the tame cattle; when grown up, they were perfectly tame, but, at the same time, very unruly, so that there was no enclosure strong enough to resist them, if they had a mind to break through it; for as they possess a great strength in their neck, it was easy for them to overthrow the pales with their horns, and to get into the corn-fields; and as soon as they had made a road, all the tame cattle followed them; they likewise copulated with the latter, and by that means generated as it were a new breed. This American species of oxen is Linnæus's *bos bison*, β .

American deer can likewise be tamed; and I have seen them tame myself in different places. A farmer in New Jersey had one in his possession, which he had caught when it was very young; and at present it was so tame, that in the day-time it run into the wood for its food, and towards night it returned home, and frequently brought a

wild deer out of the wood, giving its master an opportunity to shoot it. Several people have therefore tamed young deer, and make use of them for hunting wild deer, or for decoying them home, especially in the time of their rutting.

Beavers have been so tamed, that they have gone on fishing, and brought home what they had caught to their masters. This often is the case with otters, of which I have seen some, which were as tame as dogs, and followed their masters wherever they went; if he went out in a boat, the otter went with him, jumped into the water, and after a while came up with a fish. The opossum can likewise be tamed, so as to follow people like a dog.

The raccoon, which we (Swedes) call *siupp*, can in time be made so tame as to run about the streets like a domestic animal; but it is impossible to make it leave off its habit of stealing. In the dark it creeps to the poultry, and kills in one night a whole flock. Sugar and other sweet things must be carefully hidden from it; for if the chests and boxes are not always locked up, it gets into them, eats the sugar, and licks up the treacle with its paws: the ladies therefore have every day some complaint against it, and for this reason many people rather forbear the diversion which this ape-like animal affords.

The grey and flying squirrels are so tamed by the boys, that they sit on their shoulders, and follow them every where.

The turkey cocks and hens run about in the woods of this country, and differ in nothing from our tame ones, except in their superior size, and redder though more palatable flesh. When their eggs are found in the wood, and put under tame turkey hens, the young ones become tame; however, when they grow up, it sometimes happens that they fly away; their wings are therefore commonly clipped, especially when young; but the tamed turkeys are commonly much more irascible than those which are naturally tame. The Indians likewise employ themselves in taming them and keeping them near their huts.

Wild geese have likewise been tamed in the following manner: when the wild geese first come hither in spring, and stop a little while (for they do not breed in Pennsylvania) the people try to shoot them in the wing, which, however, is generally mere chance. They then row to the place where the wild-geese fell, catch it, and keep it for some time at home; by this means many of them have been made so tame, that when they were let out in the morning they returned in the evening; but, to be more sure of them, their wings are commonly clipped. I have seen wild-geese of this kind, which the owner assured me that he had kept for more than twelve years; but though he kept eight of them, yet he never had the pleasure to see them copulate with the tame ones, or lay eggs.

Partridges, which are here in abundance, may likewise be so far tamed, as to run about all day with the poultry, and to come along with them to be fed when they are called. In the same manner I have seen wild pigeons, which were made so tame as to fly out and return again. In some winters there are immense quantities of wild pigeons in Pennsylvania.

Oct. 24th. Of all the rare birds of North America, the humming-bird is the most admirable, or at least most worthy of peculiar attention. Several reasons induce me to believe that few parts of the world can produce its equal. Dr. Linnæus calls it *trochilus colubris*. The Swedes, and some Englishmen, call it the king's bird; but the name of humming-bird is more common. Catesby, in his Natural History of Carolina, vol. i. page 65. tab. 65. has drawn it, in its natural size, with its proper colours,

colours, and added a description of it*. In size it is not much bigger than a large humble-bee, and is therefore the least of all birds†, or it is much if there is a lesser species in the world. Its plumage is most beautifully coloured, most of its feathers being green, some grey, and others forming a shining red ring round its neck; the tail glows with fine feathers, changing from green into a brass colour. These birds come here in spring, about the time when it begins to grow very warm, and make their nests in summer; but, towards autumn, they retreat again into the more southern countries of America. They subsist barely upon the nectar, or sweet juice of flowers, contained in that part which botanists call the nectarium, and which they suck up with their long bills. Of all the flowers, they like those most, which have a long tube; and I have observed that they have fluttered chiefly about the *impatiens noli tangere*, and the *monarda* with crimson flowers. An inhabitant of the country is sure to have a number of these beautiful and agreeable little birds before his windows all the summer long, if he takes care to plant a bed with all sorts of fine flowers under them. It is indeed a diverting spectacle to see these little active creatures flying about the flowers like bees, and sucking their juices with their long and narrow bills. The flowers of the above-mentioned *monarda* grow verticillated, that is, at different distances they surround the stalk, as the flowers of our mint (*mentha*), bastard hemp (*galeopsis*), mother-wort (*leonurus*), and dead nettle (*lamium*). It is therefore diverting to see them putting their bills into every flower in the circle. As soon as they have sucked the juice of one flower, they flutter to the next. One that has not seen them would hardly believe in how short a space of time they have had their tongues in all the flowers of a plant, which when large, and with a long tube, the little bird, by putting its head into them, looks as if it crept with half its body into them.

During their sucking the juice out of the flowers they never settle on it, but flutter continually like bees, bend their feet backwards, and move their wings so quick that they are hardly visible. During this fluttering they make a humming like bees, or like that which is occasioned by the turning of a little wheel. After they have thus, without resting, fluttered for a while, they fly to a neighbouring tree or post, and resume their vigour again. They then return to their humming and sucking. They are not very shy; and I, in company with several other people, have not been full two yards from the place where they fluttered about and sucked the flowers; and though we spoke and moved, yet they were no ways disturbed; but, on going towards them, they would fly off with the swiftness of an arrow. When several of them were on the same bed there was always a violent combat between them, in meeting each other at the same flower (for envy was likewise predominant amongst these little creatures), and they attacked with such impetuosity that it would seem as if the strongest would pierce its antagonist through and through with its long bill. During the fight, they seem to stand in the air, keeping themselves up by the incredibly swift motion of their wings. When the windows towards the garden are open, they pursue each other into the rooms, fight a little, and flutter away again. Sometimes they come to a flower which is withering, and has no more juice in it; they then, in a fit of anger, pluck it off, and throw it on the ground, that it may not mislead them for the future. If a garden contains a great number of these little birds, they are seen to pluck

* The same is to be met with in Edwards's Natural History of Birds, p. 38. tab. 38. F.

† There is a much lesser species of humming-bird, by Linnæus called *trochilus minimus*, being the least bird known; Sir Hans Sloane's living one weighed only twenty grains, and Mr. Edwards's dry one forty-five. It is drawn in Edwards's birds, t. 150. in its natural size, together with its egg. F.

off the flowers in such quantities that the ground is quite covered with them, and it seems as if this proceeded from a motion of envy.

Commonly you hear no other sound than their humming; but when they fly against each other in the air, they make a chirping noise like a sparrow or chicken. I have sometimes walked with several other people in small gardens, and these birds have on all sides fluttered about us without appearing very shy. They are so small that one would easily mistake them for great humming-bees or butterflies, and their flight resembles that of the former, and is incredibly swift. They have never been observed to feed on insects or fruit; the nectar of flowers seems therefore to be their only food. Several people have caught some humming-birds, on account of their singular beauty, and have put them into cages, where they died for want of a proper food. However, Mr. Bartram has kept a couple of them for several weeks together, by feeding them with water in which sugar had been dissolved; and I am of opinion, that it would not be difficult to keep them all winter in a hot-house.

The humming-bird always builds its nest in the middle of a branch of a tree, and it is so small that it cannot be seen from the ground, but he who intends to see it must get up to the branch. For this reason it is looked upon as a great rarity if a nest is accidentally found, especially as the trees in summer have so thick a foliage. The nest is likewise the least of all; that which is in my possession is quite round, and consists in the inside of a brownish and quite soft down, which seems to have been collected from the leaves of the great mullein or *verbascum thapsus*, which are often found covered with a soft wool of this colour, and the plant is plentiful here. The outside of the nest has a coating of green moss, such as is common on old pales, or enclosures, and on trees; the inner diameter of the nest is hardly a geometrical inch at the top, and its depth half an inch. It is however known, that the humming-birds make their nests likewise of flax, hemp, moss, hair, and other such soft materials; they are said to lay two eggs, each of the size of a pea.

Oct. 25th. I employed this day and the next in packing up all the seeds gathered this autumn, for I had an opportunity of sending them to England by the ships which sailed about this time. From England they were forwarded to Sweden.

Oct. 27th. In the morning I set out on a little journey to New York, in company with Mr. Cock, with a view to see the country, and to enquire into the safest road, which I could take in going to Canada, through the desert or uninhabited country between it and the English provinces.

That part where we travelled at present was pretty well inhabited on both sides of the road, by Englishmen, Germans, and other Europeans. Plains and hills of different dimensions were seen alternately: mountains and stones I never saw, excepting a few pebbles. Near almost every farm was a great orchard with peach and apple-trees, some of which were yet loaded with fruit.

The enclosures were in some parts low enough for the cattle to leap over them with ease; to prevent this the hogs had a triangular wooden yoke; and to the horse's neck was fastened a piece of wood, which at the lower end had a tooth or hook, fastening in the enclosure, and stopping the horse, just when it lifted its fore feet to leap over; but I know not whether this be a good invention with regard to horses. They were likewise kept in bounds by a piece of wood, one end of which was fastened to one of the fore feet, and the other to one of the hind feet, and it forced them to walk pretty slowly, as at the same time it made it impossible for them to leap over the enclosures. To me it appeared that the horses were subject to all sorts of dangerous accidents from this piece of wood.

Near

Near New Frankfurt we rode over a little stone bridge, and somewhat further, eight or nine English miles from Philadelphia, we passed over another, which was likewise of stone. There are not yet any milestones put up in the country, and the inhabitants only compute the distances by guess. We were afterwards brought over a river in a ferry, where we paid threepence a person for ourselves and our horses.

At one of the places where we stopt to have our horses fed, the people had a mocking-bird in a cage; and it is here reckoned the best singing bird, though its plumage be very simple, and not showy at all. At this time of the year it does not sing. Linnæus calls it *iturdus polyglottos*; and Catesby, in his *Natural History of Carolina*, vol. 1. p. 27. tab. 27, has likewise described and drawn this bird. The people said that it built its nests in the bushes and trees, but is so shy, that if any body come and look at its eggs, it leaves the nest, never to come to it again. Its young ones require great care in being bred up. If they are taken from their mother and put into a cage she feeds them for three or four days but seeing no hopes of setting them at liberty, she flies away; it then often happens, that the young ones die soon after, doubtless because they cannot accustom themselves to eat what the people give them. These birds stay all summer in the colonies, but retire in autumn to the south, and stay away all winter. They have got the name of mocking-birds on account of their skill in imitating the note of almost every bird they hear. The song peculiar to them is excellent, and varied by an infinite change of notes and melody; several people are therefore of opinion that they are the best singing birds in the world. So much is certain, that few birds come up to them; this is what makes them precious.

About noon we came to New Bristol, a small town in Pennsylvania, on the banks of the Delaware, about fifteen English miles from Philadelphia. Most of the houses are built of stone, and stand asunder. The inhabitants carry on a small trade, though most of them get their goods from Philadelphia. On the other side of the river, almost directly opposite to New Bristol, lies the town of Burlington, in which the governor of New Jersey resides.

Country seats appeared on both sides of the roads. But soon we came into a lane enclosed with pales on both sides, including pretty great corn-fields. Next followed a wood, and we perceived, for the space of four English miles, nothing but woods, and a very poor soil, on which the *lupinus perennis* grew plentifully and succeeded well. I was overjoyed to see a plant come on so well in these poor dry places, and even began to meditate how to improve this discovery in a soil like that which it inhabited. But I afterwards had the mortification to find that the horses and cows eat almost all the other plants, but left the lupine, which was however very green, looked very fresh, and was extremely soft to the touch. Perhaps means may be found out of making this plant palatable to the cattle. In the evening we arrived at Trenton, after having previously passed the Delaware in a ferry.

Oct. 28th. Trenton is a long narrow town, situate at some distance from the river Delaware, on a sandy plain; it belongs to New Jersey, and they reckon it thirty miles from Philadelphia. It has two small churches, one for the people belonging to the church of England, the other for the Presbyterians. The houses are partly built of stone, though most of them are made of wood or planks, commonly two stories high, together with a cellar below the building, and a kitchen under ground, close to the cellar. The houses stand at a moderate distance from one another. They are commonly built so that the street passes along one side of the houses, while gardens of different dimensions bound the other side; in each garden is a draw-well; the place is reckoned very healthy. Our landlord told us, that twenty-two years ago, when he

first settled here, there was hardly more than one house; but from that time Trenton has increased so much that there are at present near a hundred houses. The houses were within divided into several rooms by their partitions of boards. The inhabitants of the place carried on a small trade with the goods which they got from Philadelphia, but their chief gain consisted in the arrival of the numerous travellers between that city and New York; for they are commonly brought by the Trenton yachts from Philadelphia to Trenton, or from thence to Philadelphia. But from Trenton further to New Brunswick, the travellers go in the waggons which set out every day for that place. Several of the inhabitants, however, likewise subsist on the carriage for all sorts of goods, which are every day sent in great quantities either from Philadelphia to New York or from thence to the former places; for between Philadelphia and Trenton all goods go by water, but between Trenton and New Brunswick they are all carried by land, and both these conveniences belong to people of this town.

For the yachts which go between this place and the capital of Pennsylvania, they usually pay a shilling and sixpence of Pennsylvania currency per person, and every one pays besides for his baggage. Every passenger must provide meat and drink for himself, or pay some settled fare: between Trenton and New Brunswick a person pays two shillings and sixpence, and the baggage is likewise paid for separately.

We continued our journey in the morning; the country through which we passed was for the greatest part level, though sometimes there were some long hills; some parts were covered with trees, but far the greater part of the country was without woods; on the other hand, I never saw any place in America, the towns excepted, so well peopled. An old man, who lived in this neighbourhood, and accompanied us for some part of the road, however assured me, that he could well remember the time when between Trenton and New Brunswick there were not above three farms, and he reckoned it was about fifty and some odd years ago. During the greater part of the day we had very extensive corn-fields on both sides of the road; and commonly towards the south the country had a great declivity. Near almost every farm was a spacious orchard full of peaches and apple-trees, and in some of them the fruit was fallen from the trees in such quantities as to cover nearly the whole surface. Part of it they left to rot, since they could not take it all in and consume it. Wherever we passed by, we were always welcome to go into the fine orchards, and gather our pockets full of the choicest fruit, without the possessor's so much as looking after it. Cherry-trees were planted near the farms, on the roads, &c.

The barns* had a peculiar kind of construction hereabouts, which I will give a concise description of. The whole building was very great, so as almost to equal a small church; the roof was pretty high, covered with wooden shingles, declining on both sides, but not steep: the walls which support it were not much higher than a full-grown man; but, on the other hand, the breadth of the building was the more considerable: in the middle was the threshing-floor, and above it, or in the loft or garret, they put the corn which was not yet threshed, the straw, or any thing else, according to the season: on one side were stables for the horses, and on the other for the cows. And the small cattle had likewise their particular stables or styes; on both ends of the buildings were great gates, so that one could come in with a cart and horses through one of them, and go out at the other: here was therefore under one roof the threshing-floor, the barn, the stables, the hay-loft, the coach-house, &c. This kind of buildings is chiefly made use of by the Dutch and Germans; for it is to be observed, that the

* The author seems to comprehend more by this word than what it commonly includes, for he describes it as a building which contains both a barn and stables. F.

country between Trenton and New York is inhabited by few Englishmen, but, instead of them, by Germans or Dutch *, the latter of which especially are numerous.

Before I proceed I find it necessary to remark one thing with regard to the Indians, or old Americans. For this account may perhaps meet with readers, who, like many people of my acquaintance, may be of opinion that all North America was almost wholly inhabited by savage or heathen nations, and they may be astonished that I do not mention them more frequently in my account. Others may perhaps imagine, that when I mention in my journal that the country is much cultivated, that in several places houses of stone or wood are built, round which are corn-fields, gardens, and orchards, that I am speaking of the property of the Indians; to undeceive them, I here give the following explication. The country, especially all along the coasts, in the English colonies, is inhabited by Europeans, who in some places are already so numerous that few parts of Europe are more populous. The Indians have sold the country to the Europeans, and have retired further up: in most parts you may travel twenty Swedish miles, or about a hundred and twenty English miles from the sea-shore before you reach the first habitations of the Indians: and it is very possible for a person to have been at Philadelphia and other towns on the sea-shore for half a year together without so much as seeing an Indian. I intend in the sequel to give a more circumstantial account of them, their religion, manners, œconomy, and other particulars relating to them: at present I return to the sequel of my journal.

About nine English miles from Trenton, the ground began to change its colour; hitherto it consisted of a considerable quantity of hazel-coloured clay, but at present the earth was a reddish brown, so that it sometimes had a purple colour, and sometimes looked like logwood. This colour came from a red limestone, which approached very near to that which is on the mountain Kinnekulle in West Gothland, and makes a particular stratum in the rock. The American red limestone therefore seems to be merely a variety of that I saw in Sweden, it lay in strata of two or three fingers thickness; but was divisible into many thinner plates or shivers, whose surface was seldom flat and smooth, but commonly rough: the strata themselves were frequently cut off by horizontal cracks. When these stones were exposed to the air they, by degrees, shivered and withered into pieces, and at last turned into dust. The people of this neighbourhood did not know how to make any use of it; the soil above is sometimes rich and sometimes poor: in such places where the people had lately dug new wells, I perceived that most of the rubbish which was thrown up consisted of such a species of stone. This reddish brown earth we always saw till near New Brunswick, where it is particularly plentiful. The banks of the river shewed, in many places, nothing but strata of limestone, which did not run horizontally but dipped very much.

About ten o'clock in the morning we came to Prince-town, which is situated in a plain. Most of the houses are built of wood, and are not contiguous, so that there are gardens and pastures between them. As these parts were sooner inhabited by Europeans than Pennsylvania, the woods were likewise more cut away, and the country more cultivated, so that one might have imagined himself to be in Europe.

We now thought of continuing our journey, but as it began to rain very heavily, and continued so during the whole day and part of the night, we were forced to stay till next morning.

* This kind of building is frequent in the north of Germany, Holland, and Prussia, and therefore it is no wonder that it is employed by people who were used to them in their own country. F.

Oct. 29th. This morning we proceeded on our journey. The country was pretty well peopled; however there were yet great woods in many places: they all consisted of deciduous trees; and I did not perceive a single tree of the fir kind till I came to New Brunswick. The ground was level, and did not seem to be every where of the richest kind. In some places it had hillocks, losing themselves almost imperceptibly in the plains, which were commonly crossed by a rivulet. Almost near every farmhouse were great orchards. The houses were commonly built of timber, and at some distance by themselves stood the ovens for baking, consisting commonly of clay.

On a hill covered with trees, and called Rock-hill, I saw several pieces of stone or rock, so big that they would have required three men to roll them down. But besides these there were few great stones in the country; for most of those which we saw could easily be lifted up by a single man. In another place we perceived a number of little round pebbles, but we did not meet with either mountains or rocks.

About noon we arrived at New Brunswick, a pretty little town in the province of New Jersey, in a valley on the west side of the river Rareton; on account of its low situation it cannot be seen (coming from Pennsylvania) before you get to the top of the hill, which is quite close up to it: the town extends north and south along the river. The German inhabitants have two churches, one of stone and the other of wood; the English church is of the latter kind, but the presbyterians were building one of stone: the town-house makes likewise a pretty good appearance. Some of the other houses are built of bricks, but most of them are made either wholly of wood, or of bricks and wood; the wooden houses are not made of strong timber but merely of boards or planks, which are within joined by laths: such houses as consist of both wood and bricks have only the wall towards the street of bricks, all the other sides being merely of planks. This peculiar kind of ostentation would easily lead a traveller who passes through the town in haste, to believe that most of the houses are built of bricks. The houses were covered with shingles; before each door there was an elevation, to which you ascend by some steps from the street; it resembled a small balcony, and had some benches on both sides, on which the people sat in the evening, in order to enjoy the fresh air, and to have the pleasure of viewing those who passed by. The town has only one street lengthways, and at its northern extremity there is a street across; both of these are of a considerable length.

The river Rareton passes hard by the town, and is deep enough for great yachts to come up; its breadth near the town is within the reach of a common gun-shot; the tide comes up several miles beyond the town, the yachts were placed lengthways along the bridge; the river has very high and pretty steep banks on both sides, but near the town there are no such banks, it being situated in a low valley. One of the streets is almost entirely inhabited by Dutchmen, who came hither from Albany, and for that reason they call it Albany-street. These Dutch only keep company among themselves, and seldom or ever go amongst the other inhabitants, living as it were quite separate from them. New Brunswick belongs to New Jersey; however the greatest part, or rather all its trade is to New York, which is about forty English miles distant; to that place they send corn, flour in great quantities, bread, several other necessaries, a great quantity of linseed, boards, timber, wooden vessels, and all sorts of carpenter's work. Several small yachts are every day going backwards and forwards between these two towns. The inhabitants likewise get a considerable profit from the travellers who every hour pass through on the high road.

The

The steep banks consist of the red limestone, which I have before described. It is here plainly visible that the strata are not horizontal, but considerably dipping, especially towards the south. The weather and the air has in a great measure dissolved the stone here: I enquired whether it could not be made use of; but was assured, that in building houses it was entirely useless; for, though it is hard and permanent under ground, yet, on being dug out, and exposed for some time to the air, it first crumbles into greater, then into lesser pieces, and at last is converted into dust. An inhabitant of this town, however, tried to build a house with this sort of stone, but its outsides being exposed to the air, soon began to change so much, that the owner was obliged to put boards all over the wall to preserve it from falling to pieces. The people however pretend that this stone is a very good manure, if it is scattered upon the corn-fields in its rubbishy state, for it is said to stifle the weeds: it is therefore made use of both on the fields and in gardens*.

Towards the evening we continued our journey, and were ferried over the river Rareton, together with our horses. In a very dry summer, and when the tide has ebbed, it is by no means dangerous to ride through this river. On the opposite shore the red juniper tree was pretty abundant. The country through which we now passed was pretty well inhabited, but in most places full of small pebbles.

We saw guinea-hens in many places where we passed by. They sometimes run about the fields, at a good distance from the farm houses.

About eight English miles from New Brunswick the road divided. We took that on the left, for that on the right leads to Amboy, the chief sea-town in New Jersey. The country now made a charming appearance; some parts being high, others forming vallies, and all of them well cultivated. From the hills you had a prospect of houses, farms, gardens, corn-fields, forests, lakes, islands, roads, and pastures.

In most of the places where we travelled this day the colour of the ground was reddish. I make no doubt but there were strata of the before mentioned red limestone under it. Sometimes the ground looked very like a cinnabar ore.

Wood-bridge is a small village in a plain, consisting of a few houses: we stopped here to rest our horses a little. The houses were most of them built of boards; the walls had a covering of shingles on the outside; these shingles were round at one end, and all of a length in each row: some of the houses had an Italian roof, but the greatest part had roofs with pediments; most of them were covered with shingles. In most places we met with wells, and buckets to draw up the water.

Elizabeth-town is a small town, about twenty English miles distant from New Brunswick: we arrived there immediately after sun-setting. Its houses are mostly scattered, but well built, and generally of boards, with a roof of shingles, and walls covered with the same. There were likewise some stone buildings. A little rivulet passes through the town from west to east; it is almost reduced to nothing when the water ebbs away, but with the full tide they can bring up small yachts. Here were two fine churches, each of which made a much better appearance than any one in Philadelphia. That belonging to the people of the church of England was built of bricks, had a steeple with bells, and a balustrade round it, from which there was a prospect of the country. The meeting-house of the presbyterians was built of wood, but had both a steeple and bells, and was, like the other houses, covered with shingles. The town-house made likewise a good appearance, and had a spire with a bell. The banks of the river were red, from the reddish lime-

* Probably it is a stone marle; a blue and reddish species of this kind is used with good success in the county of Bamff in Scotland.

stone; both in about the town were many gardens and orchards; and it might truly be said, that Elizabeth-town was situated in a garden, the ground hereabouts being even and well cultivated.

At night we took up our lodgings at Elizabeth-town Point, an inn, about two English miles distant from the town, and the last house on this road belonging to New Jersey. The man who had taken the lease of it, together with that of the ferry near it, told us that he paid a hundred and ten pounds of Pennsylvania currency to the owner.

Oct. 30th. We were ready to proceed on our journey at sun-rising. Near the inn where we had passed the night, we were to cross a river, and we were brought over, together with our horses, in a wretched half-rotten ferry. This river came a considerable way out of the country, and small vessels could easily sail up it. This was a great advantage to the inhabitants of the neighbouring country, giving them an opportunity of sending their goods to New York with great ease; and they even made use of it for trading to the West Indies. The country was low on both sides of the river, and consisted of meadows. But there was no other hay to be got than such as commonly grows in swampy grounds; for as the tide comes up in this river, these low plains were sometimes overflowed when the water was high. The people hereabouts are said to be troubled in summer with immense swarms of gnats or musquitos, which sting them and their cattle. This was ascribed to the low swampy meadows, on which these insects deposit their eggs, which are afterwards hatched by the heat.

As soon as we had got over the river, we were upon Staten Island, which is quite surrounded with salt water. This is the beginning of the province of New York. Most of the people settled here were Dutchmen, or such as came hither whilst the Dutch were yet in possession of this place. But at present they were scattered among the English and other European inhabitants, and spoke English for the greatest part. The prospect of the country here is extremely pleasing, as it is not so much intercepted by woods, but offers more cultivated fields to view. Hills and vallies still continued, as usual, to change alternately.

The farms were near each other. Most of the houses were wooden; however some were built of stone. Near every farm-house was an orchard with apple-trees. Here, and on the whole journey before, I observed a press for cyder at every farm-house, made in different manners, by which the people had already pressed the juice out of the apples, or were just busied with that work. Some people made use of a wheel made of thick oak planks, which turned upon a wooden axis, by means of a horse drawing it, much in the same manner as the people do with woad; * except that here the wheel runs upon planks. Cherry-trees stood along the enclosures round corn-fields.

The corn-fields were excellently situated, and either sown with wheat or rye. They had no ditches on their sides, but (as is usual in England) only furrows, drawn at greater or lesser distances from each other.

In one place we observed a water-mill, so situated that when the tide flowed the water ran into a pond; but when it ebbed, the floodgate was drawn up, and the mill driven by the water flowing out of the pond.

About eight o'clock in the morning we arrived at the place where we were to cross the water, in order to come to the town of New York. We left our horses here, and went on board the yacht: we were to go eight English miles by sea; however, we landed about eleven o'clock in the morning at New York. We saw a kind of wild

* Dr. Linnæus, in his Travels through Westrogothia, has given a drawing of the machine by which woad prepared, on the 128th page.

ducks in immense quantities upon the water: the people called them blue bills, and they seemed to be the same with our pintail ducks, or Linnæus's *anas acuta*: but they were very shy. On the shore of the continent we saw some very fine sloping corn-fields, which at present looked quite green, the corn being already come up. We saw many boats, in which the fishermen were busy catching oysters: to this purpose they make use of a kind of rakes with long iron teeth bent inwards; these they used either single, or two tied together, in such a manner that the teeth were turned towards each other.

Oct. 31st. About New York they find innumerable quantities of excellent oysters, and there are few places which have oysters of such an exquisite taste, and of so great a size: they are pickled and sent to the West Indies and other places; which is done in the following manner. As soon as the oysters are caught, their shells are opened, and the fish washed clean; some water is then poured into a pot, the oysters are put into it, and they must boil for a while; the pot is then taken off from the fire again, the oysters taken out and put upon a dish, till they are somewhat dry: then you take some mace, allspice, black pepper, and as much vinegar as you think is sufficient to give a fourth taste. All this is mixed with half the liquor in which the oysters were boiled, and put over the fire again. While you boil it, great care is to be taken in scumming off the thick scum; at last the whole pickle is poured into a glass or earthen vessel, the oysters are put to it, and the vessel is well stopped to keep out the air. In this manner oysters will keep for years together, and may be sent to the most distant parts of the world.

The merchants here buy up great quantities of oysters about this time, pickle them in the above-mentioned manner, and send them to the West Indies: by which they frequently make a considerable profit: for the oysters which cost them five shillings of their currency, they commonly sell for a pistole, or about six times as much as they gave for them; and sometimes they get even more: the oysters which are thus pickled have a very fine flavour. The following is another way of preserving oysters: they are taken out of the shells, fried with butter, put into a glass or earthen vessel with the melted butter over them, so that they are quite covered with it, and no air can get to them. Oysters prepared in this manner have likewise an agreeable taste, and are exported to the West Indies, and other parts.

Oysters are here reckoned very wholesome, some people assured us, that they had not felt the least inconvenience after eating a considerable quantity of them. It is likewise a common rule here, that oysters are best in those months, which have an *r* in their name, such as September, October, &c.; but that they are not so good in other months; however there are poor people who live all the year long upon nothing but oysters with bread.

The sea near New York, affords annually the greatest quantity of oysters. They are found chiefly in a muddy ground, where they lie in the slime, and are not so frequent in a sandy bottom: a rocky and a stony bottom is seldom found here. The oyster shells are gathered in great heaps, and burnt into a lime, which by some people is made use of in building houses, but is not reckoned so good as that made of limestone. On our journey to New York, we saw high heaps of oyster shells near the farm-houses, upon the sea shore; and about New York, we observed the people had carried them upon the fields, which were sown with wheat. However they were entire, and not crushed.

The Indians, who inhabited the coast before the arrival of the Europeans, have made oysters and other shell-fish their chief food; and at present, whenever they come

come to a salt water, where oysters are to be got, they are very active in catching them, and sell them in great quantities to other Indians, who live higher up the country: for this reason you see immense numbers of oyster and muscle shells piled up near such places, where you are certain that the Indians formerly built their huts. This circumstance ought to make us cautious in maintaining, that in all places on the sea-shore, or higher up in the country, where such heaps of shells are to be met with, the latter have lain there ever since the time that those places were overflowed by the sea.

Lobsters are likewise plentifully caught hereabouts, pickled much in the same way as oysters, and sent to several places. I was told of a very remarkable circumstance about these lobsters, and I have afterwards frequently heard it mentioned. The coast of New York had already European inhabitants for a considerable time, yet no lobsters were to be met with on that coast; and though the people fished ever so often, they could never find any signs of lobsters being in this part of the sea: they were therefore continually brought in great well-boats from New England, where they are plentiful; but it happened that one of these well-boats broke in pieces near Hellgate, about ten English miles from New York, and all the lobsters in it got off. Since that time they have so multiplied in this part of the sea that they are now caught in the greatest abundance.

Nov. 1st. A kind of cold fever, which the English in this country call fever and ague, is very common in several parts of the English colonies. There are, however, other parts where the people have never felt it. I will in the sequel describe the symptoms of this disease at large. Several of the most considerable inhabitants of this town assured me, that this disease was not near so common in New York as it is in Pennsylvania, where ten were seized by it to one in the former province; therefore they were of opinion, that this disease was occasioned by the vapours arising from stagnant fresh water, from marshes, and from rivers; for which reason those provinces, situated on the sea shore, could not be so much affected by it. However the carelessness with which people eat quantities of melons, water melons, peaches, and other juicy fruit, in summer, was reckoned to contribute much towards the progress of this fever; and repeated examples confirmed the truth of this opinion. The Jesuit's bark was reckoned a good remedy against it. It has, however, often been found to have operated contrary to expectation, though I am ignorant whether it was adulterated, or whether some mistake had been committed in the manner of taking it. Mr. Davis van Horne, a merchant, told me, that he cured himself, and several other people, of this fever, by the leaves of the common garden sage, or *salvia officinalis* of Linnæus. The leaves are crushed or pounded in a mortar, and the juice is pressed out of them; this is continued till they get a spoonful of the liquid, which is mixed with lemon juice. This draught is taken about the time that the cold fit comes on; and after taking it three or four times the fever does not come again.

The bark of the white oak was reckoned the best remedy which had as yet been found against the dysentery. It is reduced to a powder, and then taken: some people assured me, that in cases where nothing would help, this remedy had given a certain and speedy relief. The people in this place likewise make use of this bark (as is usually done in the English colonies) to dye wool a brown colour, which looks like that of bohea tea, and does not fade by being exposed to the sun. Among the numerous shells which are found on the sea-shore, there are some, which by the English here are called clams, and which bear some resemblance to the human ear. They have a considerable thickness, and are chiefly white, excepting the pointed end, which both without and within has a blue colour, between purple and violet. They are met with in vast numbers

numbers on the sea-shore of New York, Long Island, and other places. The shells contain a large animal, which is eaten both by the Indians and Europeans settled here.

A considerable commerce is carried on in this article with such Indians as live further up the country. When these people inhabited the coast they were able to catch their own clams, which at that time made a great part of their food; but at present this is the business of the Dutch and English, who live in Long Island and other maritime provinces. As soon as the shells are caught, the fish is taken out of them, drawn upon a wire, and hung up in the open air, in order to dry by the heat of the sun. When this is done, the flesh is put into proper vessels, and carried to Albany upon the river Hudson; there the Indians buy them, and reckon them one of their best dishes. Besides the Europeans, many of the native Indians come annually down to the sea-shore, in order to catch clams, proceeding with them afterwards in the manner I have just described.

The shells of these clams are used by the Indians as money, and make what they call their wampum; they likewise serve their women for an ornament, when they intend to appear in full dress. These wampums are properly made of the purple parts of the shells, which the Indians value more than the white parts. A traveller, who goes to trade with the Indians, and is well stocked with them, may become a considerable gainer; but if he take gold coin, or bullion, he will undoubtedly be a loser; for the Indians, who live farther up the country, put little or no value upon these metals which we reckon so precious, as I have frequently observed in the course of my travels. The Indians formerly made their own wampums, though not without a deal of trouble; but at present the Europeans employ themselves that way, especially the inhabitants of Albany, who get a considerable profit by it. In the sequel I intend to relate the manner of making the wampum.

Nov. 2d. Besides the different sects of Christians there are many Jews settled in New York, who possess great privileges. They have a synagogue and houses, and great country seats of their own property, and are allowed to keep shops in town. They have likewise several ships, which they freight, and send out with their own goods; in fine, they enjoy all the privileges common to the other inhabitants of this town and province.

During my residence at New York this time, and in the two next years, I was frequently in company with Jews. I was informed, among other things, that these people never boiled any meat for themselves on Saturday, but that they always did it the day before; and that in winter they kept a fire during the whole Saturday. They commonly eat no pork; yet I have been told by several men of credit, that many of them (especially among the young Jews) when travelling, did not make the least difficulty about eating this or any other meat that was put before them; even though they were in company with Christians. I was in their synagogue last evening for the first time, and this day at noon I visited it again, and each time I was put into a particular seat, which was set apart for strangers or Christians. A young rabbi read the divine service, which was partly in Hebrew, and partly in the rabbinical dialect. Both men and women were dressed entirely in the English fashion; the former had all of them their hats on, and did not once take them off during service. The galleries, I observed, were appropriated to the ladies, while the men sat below. During prayers the men spread a white cloth over their heads; which perhaps is to represent sackcloth; but I observed that the wealthier sort of people had a much richer cloth than the poorer ones. Many of the men had Hebrew books, in which they sang and read alternately. The rabbi
stood

stood in the middle of the synagogue, and read with his face turned towards the east: he spoke, however, so fast, as to make it almost impossible for any one to understand what he said *.

New York, the capital of a province of the same name, is situated under forty degrees and forty minutes north latitude, and seventy-four degrees and four minutes of western longitude from London; and is about ninety-seventy English miles distant from Philadelphia. The situation of it is extremely advantageous for trade; for the town stands upon a point which is formed by two bays, into one of which the river Hudson discharges itself, not far from the town; New York is therefore on three sides surrounded with water: the ground it is built on is level in some parts, and hilly in others: the place is generally reckoned very wholesome.

The town was first founded by the Dutch: this, it is said, was done in the year 1623, when they were yet masters of the country; they called it New Amsterdam, and the country itself New Holland. The English, towards the end of the year 1664, taking possession of it under the conduct of Des Cartes, and keeping it by the virtue of the next treaty of peace, gave the name of New York to both the town and the province belonging to it; in size it comes nearest to Boston and Philadelphia. But with regard to its fine buildings, its opulence, and extensive commerce, it disputes the preference with them: at present it is about half as big again as Gothenburg in Sweden.

The streets do not run so straight as those of Philadelphia, and have sometimes considerable bendings: however they are very spacious and well-built, and most of them are paved, except in high places, where it has been found useless. In the chief streets, there are trees planted, which in summer gave them a fine appearance, and during the excessive heat at that time, afford a cooling shade: I found it extremely pleasant to walk in the town, for it seemed quite like a garden; the trees which are planted for this purpose are chiefly of two kinds: the water-beech, or Linnæus's *platanus occidentalis*, are the most numerous, and give an agreeable shade in summer, by their great and numerous leaves. The locust-tree, or Linnæus's *robinia pseud-acacia*, is likewise frequent: its fine leaves, and the odoriferous scent which exhales from its flowers, make it very proper for being planted in the streets near the houses, and in gardens. There are likewise lime-trees and elms in these walks, but they are not by far so frequent as the others: one seldom met with trees of the same sort next to each other, they being in general planted alternately.

Besides numbers of birds of all kinds which make these trees their abode, there are likewise a kind of frogs which frequent them in great numbers in summer; they are Dr. Linnæus's *rana arborea*, and especially the American variety of this animal. They are very clamorous in the evening and in the nights (especially when the days had been hot, and a rain was expected) and in a manner drown the singing of the birds. They frequently make such a noise that it is difficult for a person to make himself heard.

Most of the houses are built of bricks, and are generally strong and neat, and several stories high. Some had, according to old architecture, turned the gable-end towards the streets; but the new houses were altered in this respect. Many of the houses had a balcony on the roof, on which the people used to sit in the evenings in the summer season; and from thence they had a pleasant view of a great part of the town, and likewise of part of the adjacent water, and of the opposite shore. The roofs are com-

* As there are no Jews in Sweden, Prof. Kalm was an utter stranger to their manners and religious customs, and therefore relates them as a kind of novelty. F.

monly covered with tiles or shingles; the latter of which are made of the white fir-tree, or *pinus strobus* (Linn. sp. plant.) which grows higher up in the country. The inhabitants are of opinion, that a roof made of these shingles is as durable as one made in Pennsylvania of the white cedar, or *cupressus thyoides* (Linn. spec. plant.) The walls were white-washed within; and I did not any where see hangings, with which the people in this country seem in general to be but little acquainted. The walls were quite covered with all sorts of drawings and pictures in small frames. On each side of the chimnies they had usually a sort of alcove; and the wall under the windows was wainscotted, and had benches placed near it. The alcoves and all the wood work were painted with a bluish grey colour.

There are several churches in the town, which deserve some attention. 1. The English church, built in the year 1695, at the west end of the town, consisting of stone, and has a steeple with a bell. 2. The new Dutch church, which is likewise built of stone, is pretty large, and is provided with a steeple; it also has a clock, which is the only one in the town. This church stands almost due from north to south. No particular point of the compass has here been in general attended to in erecting sacred buildings. Some churches stand as is usual from east to west, others from south to north, and others in different positions. In this Dutch church there is neither altar, vestry, choir, sconces, nor paintings. Some trees are planted round it, which make it look as if it was built in a wood. 3. The old Dutch church, which is also built of stone; it is not so large as the new one. It was painted in the inside, though without any images, and adorned with a small organ, of which Governor Burnet made them a present. The men, for the most part, sit in the gallery, and the women below. 4. The Presbyterian church, which is pretty large, and was built but lately; it is of stone, and has a steeple and a bell in it. 5. The German Lutheran church. 6. The German Reformed church. 7. The French church, for Protestant refugees. 8. The Quaker's meeting-house. 9. To these may be added the Jewish synagogue, which I mentioned before.

Towards the sea, on the extremity of the promontory, is a pretty good fortress, called Fort George, which entirely commands the port, and can defend the town, at least from a sudden attack on the sea-side. Besides that, it is likewise secured on the north, or towards the shore, by a pallisade, which, however, (as for a considerable time the people have had nothing to fear from an enemy) is in many places in a very bad state of defence.

There is no good water to be met with in the town itself, but at a little distance there is a large spring of good water, which the inhabitants take for their tea, and for the uses of the kitchen. Those, however, who are less delicate in this point, make use of the water from the wells in town, though it be very bad. This want of good water lies heavy upon the horses of the strangers that come to this place; for they do not like to drink the water from the wells in the town.

The port is a good one; ships of the greatest burthen can lie in it, quite close up to the bridge; but its water is very salt, as the sea continually comes in upon it, and therefore is never frozen, except in extraordinary cold weather. This is of great advantage to the city and its commerce; for many ships either come in or go out of the port at any time of the year, unless the winds be contrary; a convenience which, as I have before observed, is wanting at Philadelphia. It is secured from all violent hurricanes from the south-east by Long Island, which is situated just before the town; therefore only the storms from the south-west are dangerous to the ships which ride at anchor here, because the port is open only on that side. The entrance however has its faults; one

of them is, that no men of war can pass through it; for though the water is pretty deep, yet it is not sufficiently so for great ships. Sometimes even merchant ships of a large size have, by the rolling of the waves and by sinking down between them, slightly touched the bottom, though without any bad consequences. Besides this, the canal is narrow; and for this reason many ships have been lost here, because they may be easily cast upon a sand, if the ship is not well piloted. Some old people, who had constantly been upon this canal, assured me, that it was neither deeper nor shallower at present than in their youth.

The common difference between high and low water at New York amounts to about six feet, English measure. But at a certain time in every month, when the tide flows more than commonly, the difference in the height of the water is seven feet.

New York probably carries on a more extensive commerce than any town in the English North American provinces; at least it may be said to equal them: Boston and Philadelphia however come very near up to it. The trade of New York extends to many places; and it is said they send more ships from thence to London than they do from Philadelphia. They export to that capital all the various sorts of skins which they buy of the Indians, sugar, logwood, and other dying woods, rum, mahogany, and many other goods which are the produce of the West Indies; together with all the specie which they get in the course of trade. Every year they build several ships here, which are sent to London, and there sold; and of late years they have shipped a quantity of iron to England. In return for these, they import from London stuffs, and every other article of English growth or manufacture, together with all sorts of foreign goods. England, and especially London, profits immensely by its trade with the American colonies; for not only New York, but likewise all the other English towns on the continent, import so many articles from England, that all their specie, together with the goods which they get in other countries, must altogether go to Old England, in order to pay the amount, to which they are however insufficient. From hence it appears how much a well-regulated colony contributes to the increase and welfare of its mother country.

New York sends many ships to the West Indies, with flour, corn, biscuit, timber, tuns, boards, flesh, fish, butter, and other provisions; together with some of the few fruits that grow here. Many ships go to Boston in New England, with corn and flour; and take in exchange, flesh, butter, timber, different sorts of fish, and other articles, which they carry further to the West Indies. They now and then take rum from thence, which is distilled there in great quantities, and sell it here with a considerable advantage. Sometimes they send yachts with goods from New York to Philadelphia, and at other times yachts are sent from Philadelphia to New York, which is only done, as appears from the gazettes, because certain articles are cheaper at one place than at the other. They send ships to Ireland every year, laden with all kinds of West India goods, but especially with linseed, which is reaped in this province. I have been assured, that in some years no less than ten ships have been sent to Ireland, laden with nothing but linseed, because it is said the flax in Ireland does not afford good seed; but probably the true reason is this; the people of Ireland, in order to have the better flax, make use of the plant before the seed is ripe, and therefore are obliged to send for foreign seed; and hence it becomes one of the chief articles in trade.

At this time a bushel of linseed is sold for eight shillings of New York currency, or exactly a piece of eight.

The goods which are shipped to the West Indies are sometimes paid for with ready money, and sometimes with West India goods, which are either first brought to New York,

York, or immediately sent to England or Holland. If a ship does not chuse to take in West India goods in its return to New York, or if nobody will freight it, it often goes to Newcastle in England, to take in coals for ballast, which when brought home sell for a pretty good price. In many parts of the town coals are made use of, both for kitchen fires, and in rooms, because they are reckoned cheaper than wood, which at present costs thirty shillings of New York currency per fathom; of which measure I have before made mention. New York has likewise some intercourse with South Carolina; to which it sends corn, flour, sugar, rum, and other goods, and takes rice in return, which is almost the only commodity exported from South Carolina.

The goods with which the province of New York trades are not very numerous. They chiefly export the skins of animals, which are bought of the Indians about Oswego; great quantities of boards, coming for the most part from Albany; timber and ready-made lumber, from that part of the country which lies about the river Hudson; and lastly, wheat, flour, barley, oats, and other kinds of corn, which are brought from New Jersey and the cultivated parts of this province. I have seen yachts from New Brunswick, laden with wheat which lay loose on board, and with flour packed up in tuns; and also with great quantities of linseed. New York likewise exports some flesh and other provisions out of its own province, but they are very few; nor is the quantity of pease, which the people about Albany bring, much greater. Iron however may be had more plentifully, as it is found in several parts of this province, and is of a considerable goodness; but all the other products of this country are of little account.

Most of the wine, which is drank here and in the other colonies, is brought from the isle of Madeira, and is very strong and fiery.

No manufactures of note have as yet been established here; at present they get all manufactured goods, such as woollen and linen cloth, &c. from England, and especially from London.

The river Hudson is very convenient for the commerce of this city; as it is navigable for near an hundred and fifty English miles up the country, and falls into the bay not far from the town, on its western side. During eight months of the year this river is full of yachts, and other greater and lesser vessels, either going to New York or returning from thence, laden either with inland or foreign goods.

I cannot make a just estimate of the ships that annually come to this town or sail from it. But I have found, by the Pennsylvania gazettes, that from the first of December in 1729, to the fifth of December in the next year, two hundred and eleven ships entered the port of New York, and two hundred and twenty-two cleared it; and since that time there has been a great increase of trade here.

The country people come to market in New York twice a week, much in the same manner as they do at Philadelphia, with this difference, that the markets are here kept in several places.

The governor of the province of New York resides here, and has a palace in the fort. Among those who have been entrusted with this post, William Burnet deserves to be had in perpetual remembrance. He was one of the sons of Dr. Thomas Burnet (so celebrated on account of his learning) and seemed to have inherited the knowledge of his father. But his great assiduity in promoting the welfare of this province, is what makes the principal merit of his character. The people of New York therefore still reckon him the best governor they ever had, and think that they cannot praise his services too much. The many astronomical observations which he made in these parts are inserted in several English works. In the year 1727, at the accession of King

George II. to the throne of Great Britain, he was appointed governor of New England. In consequence of this he left New York, and went to Boston, where he died universally lamented, on the 7th of September 1729.

An assembly of deputies, from all the particular districts of the province of New York, is held at New York once or twice every year. It may be looked upon as a parliament or diet in miniature. Every thing relating to the good of the province is here debated. The governor calls the assembly, and dissolves it at pleasure: this is a power which he ought only to make use of, either when no farther debates are necessary, or when the members are not so unanimous in the service of their king and country as is their duty: it frequently however happens, that, led aside by caprice or by interested views, he exerts it to the prejudice of the province. The colony has sometimes had a governor whose quarrels with the inhabitants have induced their representatives, or the members of the assembly, through a spirit of revenge, to oppose indifferently every thing he proposed, whether it was beneficial to the country or not. In such cases the governor has made use of his power; dissolving the assembly, and calling another soon after, which however he again dissolved upon the least mark of their ill humour. By this means he so much tired them, by the many expences which they were forced to bear in so short a time, that they were at last glad to unite with him in his endeavours for the good of the province. But there have likewise been governors who have called assemblies and dissolved them soon after, merely because the representatives did not act according to their whims, or would not give their assent to proposals which were perhaps dangerous or hurtful to the common welfare.

The king appoints the governor according to his royal pleasure, but the inhabitants of the province make up his excellency's salary. Therefore a man entrusted with this place has greater or lesser revenues, according as he knows how to gain the confidence of the inhabitants. There are examples of governors, in this and other provinces of North America, who, by their dissensions with the inhabitants of their respective governments, have lost their whole salary, his Majesty having no power to make them pay it. If a governor had no other resource in these circumstances, he would be obliged either to resign his office, or be content with an income too small for his dignity; or else to conform himself in every thing to the inclinations of the inhabitants; but there are several stated profits, which in some measure make up for this. 1. No one is allowed to keep a public house without the governor's leave, which is only to be obtained by the payment of a certain fee, according to the circumstances of the person. Some governors therefore, when the inhabitants refused to pay them a salary, have hit upon the expedient of doubling the number of inns in their province. 2. Few people who intend to be married, unless they be very poor, will have their banns published from the pulpit; but instead of this they get licenses from the governor, which empower any minister to marry them. Now for such a licence the governor receives about half a guinea, and this, collected throughout the whole province, amounts to a considerable sum. 3. The governor signs all passports, and especially of such as go to sea; and this gives him another means of supplying his expences. There are several other advantages allowed to him, but as they are very trifling I shall omit them.

At the above assembly the old laws are reviewed and amended, and new ones are made; and the regulation and circulation of coin, together with all other affairs of that kind, are there determined. For it is to be observed, that each English colony in North America is independent of the other, and that each has its proper laws and coin, and may be looked upon in several lights as a state by itself. From hence it happens, that in time of war, things go on very slowly and irregularly here: for not only the
sense

sense of one province is sometimes directly opposite to that of another, but frequently the views of the governor, and those of the assembly, of the same province, are quite different : so that it is easy to see that while the people are quarrelling about the best and cheapest manner of carrying on the war, an enemy has it in his power to take one place after another. It has commonly happened that whilst some provinces have been suffering from their enemies, the neighbouring ones were quiet and inactive, and as if it did not in the least concern them. They have frequently taken up two or three years in considering whether they should give assistance to an oppressed sister colony, and sometimes they have expressly declared themselves against it. There are instances of provinces who were not only neuter in these circumstances, but who even carried on a great trade with the power which at that very time was attacking and laying waste some other provinces.

The French in Canada, who are but an inconsiderable body, in comparison with the English in America, have, by this position of affairs, been able to obtain great advantages in times of war ; for if we judge from the number and power of the English, it would seem very easy for them to get the better of the French in America*.

It is however of great advantage to the crown of England that the North American colonies are near a country under the government of the French, like Canada. There is reason to believe that the King never was earnest in his attempts to expel the French from their possessions there ; though it might have been done with little difficulty : for the English colonies in this part of the world have increased so much in their number of inhabitants, and in their riches, that they almost vie with Old England. Now in order to keep up the authority and trade of their mother country, and to answer several other purposes, they are forbid to establish new manufactures, which would turn to the disadvantage of the British commerce : they are not allowed to dig for any gold or silver, unless they send them to England immediately : they have not the liberty of trading to any parts that do not belong to the British dominions, excepting some settled places ; and foreign traders are not allowed to send their ships to them. These and some other restrictions, occasion the inhabitants of the English colonies to grow less tender for their mother country. This coldness is kept up by the many foreigners, such as Germans, Dutch, and French, settled here, and living among the English, who commonly have no particular attachment to Old England ; add to this likewise, that many people can never be contented with their possessions, though they be ever so great, and will always be desirous of getting more, and of enjoying the pleasure which arises from changing ; and their over great liberty, and their luxury, often lead them to licentiousness.

I have been told by Englishmen, and not only by such as were born in America, but even by such as came from Europe, that the English colonies in North America, in the space of thirty or fifty years, would be able to form a state by themselves, entirely independent on Old England : but as the whole country which lies along the sea-shore is unguarded, and on the land side is harassed by the French in times of war, these dangerous neighbours are sufficient to prevent the connection of the colonies with their mother country from being quite broken off. The English government has therefore sufficient reason to consider the French in North America as the best means of keeping the colonies in their due submission. But I am almost gone too far from my purpose ; I will therefore finish my observations on New York.

* This has really happened by a greater union and exertion of power from the colonies and the mother country ; so that Canada has been conquered, and its possession has been confirmed to Great Britain in the last peace. F.

The declination of the magnetic needle in this town was observed by Philip Wells, the chief engineer of the province of New York, in the year 1686, to be eight degrees and forty-five minutes to the westward; but, in 1723, it was only seven degrees and twenty minutes, according to the observations of Governor Burnet.

From hence we may conclude, that in thirty-eight years the magnet approaches about one degree and twenty-five minutes nearer to the true north, or, which is the same thing, about two minutes annually. Mr. Alexander, a man of great knowledge in astronomy and in mathematics, assured me, from several observations, that, in the year 1750, on the eighteenth of September, the deviation was to be reckoned six degrees and twenty-two minutes.

There are two printers in the town, and every week some English gazettes are published, which contain news from all parts of the world.

The winter is much more severe here than in Pennsylvania, it being nearly as cold as in some of the provinces of Sweden: its continuance, however, is much shorter than with us: their spring is very early, and their autumn very late, and the heat in summer is excessive. For this reason, the melons sown in the fields are ripe at the beginning of August; whereas we can hardly bring them so soon to maturity under glasses and on hot-beds. The cold of the winter I cannot justly determine, as the meteorological observations which were communicated to me were all calculated after thermometers which were so placed in the houses that the air could not freely come at them. The snow lies for some months together upon the ground, and sledges are made use of here as in Sweden, but they are rather too bulky. The river Hudson is about an English mile and a half broad at its mouth: the difference between the highest flood and the lowest ebb is between six and seven feet, and the water is very brackish: yet the ice stands in it not only one, but even several months; it has sometimes a thickness of more than two feet.

The inhabitants are sometimes greatly troubled with musquitoes. They either follow the hay, which is made near the town, in the low meadows which are quite penetrated with salt water, or they accompany the cattle at night when it is brought home. I have myself experienced, and have observed in others, how much these little animalcules can disfigure a person's face during a single night; for the skin is sometimes so covered over with little blisters from their stings, that people are ashamed to appear in public. The water melons, which are cultivated near the town, grow very large: they are extremely delicious, and are better than in other parts of North America, though they are planted in the open fields, and never in a hot-bed. I saw a water melon at Governor Clinton's in September 1750, which weighed forty-seven English pounds, and at a merchant's in town another of forty-two pounds weight; however, they were reckoned the biggest ever seen in this country.

In the year 1710, five kings, or sachems, of the Iroquois, went from hence to England, in order to engage Queen Anne to make an alliance with them against the French. Their names, dress, reception at court, speeches to the Queen, opinion of England, and of the European manners, and several other particulars about them, are sufficiently known from other writings; it would therefore be here unnecessary to enlarge about them. The kings or sachems of the Indians, have commonly no greater authority over their subjects than constables in a meeting of the inhabitants of a parish, and hardly so much. On my travels through the country of these Indians, I had never any occasion to go and wait upon the sachems, for they always came into my habitation without being asked: these visits they commonly paid in order to get a glass or

two of brandy, which they value above any thing they know. One of the five sachems, mentioned above, died in England; the others returned safe.

The first colonists in New York were Dutchmen: when the town and its territories were taken by the English, and left them by the next peace in exchange for Surinam, the old inhabitants were allowed either to remain at New York, and to enjoy all the privileges and immunities which they were possessed of before, or to leave the place with all their goods: most of them chose the former; and therefore the inhabitants, both of the town and of the province belonging to it, are yet for the greatest part Dutchmen, who still, especially the old people, speak their mother tongue.

They begin, however, by degrees, to change their manners and opinions; chiefly indeed in the town and in its neighbourhood, for most of the young people now speak principally English, and go only to the English church; and would even take it amiss if they were called Dutchmen and not Englishmen.

Though the province of New York has been inhabited by Europeans much longer than Pennsylvania, yet it is not by far so populous as that colony. This cannot be ascribed to any particular discouragement arising from the nature of the soil, for that is pretty good; but I was told of a very different reason, which I will mention here. In the reign of Queen Anne, about the year 1709, many Germans came hither, who got a tract of land from the government, on which they might settle. After they had lived there for some time, and had built houses and churches, and made corn-fields and meadows, their liberties and privileges were infringed, and, under several pretences they were repeatedly deprived of parts of their land. This at last roused the Germans; they returned violence for violence, and beat those who thus robbed them of their possessions. But these proceedings were looked upon in a very bad light by the government; the most active people among the Germans being taken up, they were very roughly treated, and punished with the utmost rigour of the law. This, however, so far exasperated the rest that the greater part of them left their houses and fields, and went to settle in Pennsylvania; there they were exceedingly well received, got a considerable tract of land, and were indulged in great privileges, which were given them for ever. The Germans, not satisfied with being themselves removed from New York, wrote to their relations and friends, and advised them, if ever they intended to come to America, not to go to New York, where the government had shewn itself so unequitable. This advice had such influence that the Germans, who afterwards went in great numbers to North America, constantly avoided New York, and always went to Pennsylvania. It sometimes happened that they were forced to go on board such ships as were bound to New York; but they were scarce got on shore, when they hastened on to Pennsylvania, in sight of all the inhabitants of New York.

But the want of people in this province may likewise be accounted for in a different manner. As the Dutch, who first cultivated this country, obtained the liberty of staying here by the treaty with England, and of enjoying all their privileges and advantages without the least limitation, each of them took a very large piece of ground for himself; and many of the more powerful heads of families made themselves the possessors and masters of a country of as great an extent as would be sufficient to form a middling and even a great parish. Most of them being very rich, their envy of the English led them not to sell them any land but at an excessive rate; a practice which is still punctually observed among their descendants. The English, therefore, as well as people of different nations, have little encouragement to settle here. On the other hand, they have sufficient opportunity in the other provinces to purchase land at a more moderate price, and with more security to themselves. It is not then to be wondered

wondered that so many parts of New York are still uncultivated, and have entirely the appearance of deserts. This instance may teach us how much a small mistake in a government will injure population.

Nov. 3d. About noon we set out from New York on our return ; and, continuing our journey, we arrived at Philadelphia on the fifth of November.

In the neighbourhood of this capital (of Pennsylvania) the people had a month ago made their cyder, which they were obliged to do, because their apples were so ripe as to drop from the trees. But on our journey through New York we observed the people still employed in pressing out the cyder. This is a plain proof, that in Pennsylvania the apples are sooner ripe than in New York ; but whether this be owing to the nature of the soil, or a greater heat of the summer in Philadelphia, or to some other cause, I know not. However, there is not the least advantage in making cyder so early ; for long experience had taught the husbandmen that it is worse for being made early in the year ; the great heat in the beginning of autumn being said to hinder the fermentation of the juice.

There is a certain quadruped which is pretty common not only in Pennsylvania but likewise in other provinces both of South and North America, and goes by the name of polecat among the English. In New York they generally call it skunk. The Swedes here, by way of nickname, called it fiskatta, on account of the horrid stench it sometimes causes, as I shall presently show. The French in Canada, for the same reason, call it bête puante, or stinking animal, and enfant du diable, or child of the devil. Some of them likewise call it pekan : Catesby, in his Natural History of Carolina, has described it in Vol. ii. p. 62. by the name of putorius Americanus striatus, and drawn in plate 62. Dr. Linnæus calls it viverra putorius. This animal which is very similar to the marten, is of about the same size, and commonly black ; on the back it has a longitudinal white stripe, and two others on each side, parallel to the former. Sometimes, but very seldom, some are seen which are quite white. On our return to Philadelphia, we saw one of these animals not far from town, near a farmer's house, killed by dogs ; and afterwards I had, during my stay in these parts, several opportunities of seeing it, and of hearing its qualities. It keeps its young ones in holes in the ground, and in hollow trees ; for it does not confine itself to the ground, but climbs up trees with the greatest agility : it is a great enemy to birds, for it breaks their eggs, and devours their young ones ; and if it can get into a hen-roost, it soon destroys all its inhabitants.

This animal has a particular quality by which it is principally known : when it is pursued by men or dogs, it runs at first as fast as it can, or climbs upon a tree ; but if it is so beset by its pursuers as to have no other way of making its escape, it squirts its urine upon them. This, according to some, it does by wetting its tail with the urine, whence, by a sudden motion, it scatters it abroad ; but others believe, that it could send its urine equally far without the help of its tail : I find the former of these accounts to be the most likely. For some credible people assured me, that they have had their faces wetted with it all over, though they stood above eighteen feet off from the animal. The urine has so horrid a stench that nothing can equal it : it is something like that of the cranesbill, or Linnæus's geranium robertianum, but infinitely stronger. If you come near a polecat when it spreads its stench you cannot breathe for a while, and it seems as if you were stifled ; and in case the urine comes into the eyes, a person is likely to be blinded. Many dogs that in a chase pursue the polecat very eagerly, run away as fast as they can when they are wetted ; however, if they be of the true breed, they will not give over the pursuit till they have caught and killed the polecat ;
but

but they are obliged now and then to rub their noses in the ground in order to relieve themselves.

Clothes which have been wetted by this animal retain the smell for more than a month, unless they be covered with fresh soil, and suffered to remain under it for twenty-four hours together, when it will, in a great measure, be removed. Those likewise who have got any of this urine upon their face and hands, rub them with loose earth; and some even hold their hands in the ground for an hour, as washing will not help them so soon. A certain man of rank, who had by accident been wetted by the polecat, stunk so ill, that on going into a house, the people either ran away, or, on his opening the door, rudely denied him entrance. Dogs that have hunted a polecat are so offensive, for some days afterwards, that they cannot be borne in the house. At Philadelphia I once saw a great number of people on a market-day, throwing at a dog that was so unfortunate as to have been engaged with a polecat just before, and to carry about him the tokens of its displeasure. Persons when travelling through a forest, are often troubled with the stink which this creature makes; and sometimes the air is so much infected that it is necessary to hold one's nose. If the wind blows from the place where the polecat has been, or if it be quite calm, as at night, the smell is more strong and disagreeable.

In the winter of 1749, a polecat, tempted by a dead lamb, came one night near the farm-house where I then slept. Being immediately pursued by some dogs, it had recourse to its usual expedient in order to get rid of them. The attempt succeeded, the dogs not choosing to continue the pursuit: the stink was so extremely great, that, though I was at some distance, it affected me in the same manner as if I had been stifled; and it was so disagreeable to the cattle, that it made them roar very loudly: however, by degrees it vanished. Towards the end of the same year one of these animals got into our cellar, but no stench was observed, for it only vents that when it is pursued. The cook, however, found for several days together that some of the meat which was kept there was eaten; and suspecting that it was done by the cat, she shut up all avenues, in order to prevent their getting at it. But the next night, being awoken by a noise in the cellar, she went down, and, though it was quite dark, saw an animal with two shining eyes, which seemed to be all on fire; she however resolutely killed it, but not before the polecat had filled the cellar with a most dreadful stench. The maid was sick of it for several days; and all the bread, flesh, and other provisions kept in the cellar, were so penetrated with it, that we could not make the least use of them, and were forced to throw them all away.

From an accident that happened at New York to one of my acquaintances, I conclude that the polecat either is not always very shy, or that it sleeps very hard at night. This man coming home out of a wood in a summer evening, thought that he saw a plant standing before him; stooping to pluck it, he was to his cost convinced of his mistake, by being all on a sudden covered with the urine of a polecat, whose tail, as it stood upright, the good man had taken for a plant: the creature had taken its revenge so effectually that he was much at a loss how to get rid of the stench.

However, though these animals play such disagreeable tricks, yet the English, the Swedes, the French, and the Indians, in these parts, tame them. They follow their masters like domestic animals; and never make use of their urine except they be very much beaten or terrified. When the Indians kill such a polecat, they always eat its flesh; but when they pull off its skin, they take care to cut away the bladder, that the flesh may not get a taste from it. I have spoken with both Englishmen and Frenchmen, who assured me that they had eaten of it, and found it very good meat, and

not much unlike the flesh of a pig. The skin, which is pretty coarse, and has long hair, is not made use of by the Europeans; but the Indians prepare it with the hair on, and make tobacco pouches of it, which they carry before them.

November 6th. In the evening I made a visit to Mr. Bartram, and found him in conversation with a gentleman of Carolina, from whom I obtained several particulars; a few of which I will here mention.

Tar, pitch, and rice are the chief products of Carolina. The soil is very sandy, and therefore many pines and firs grow in it, from which they make tar: the firs which are taken for this purpose are commonly such as are dried up of themselves; the people here in general not knowing how to prepare the firs by taking the bark off on one, or on several sides, as they do in Ostrobothnia. In some parts of Carolina they likewise make use of the branches. The manner of burning or boiling, as the man describes it to me, is entirely the same as in Finland. The pitch is thus made: they dig a hole into the ground, and smear the inside well with clay, into which they pour the tar, and make a fire round it, which is kept up till the tar has got the consistence of pitch. They make two kinds of tar in the North American colonies: one is the common tar, which I have above described, and which is made of the stems, branches, and roots, of such firs, as were already considerably dried out before; which is the most common way in this country. The other way is peeling the bark from the firs on one side, and afterwards letting them stand another year; during which the resin comes out between the cracks of the stem. The tree is then felled and burnt for tar; and the tar thus made is called green tar, not that there is that difference of colour in it, for in this respect they are both pretty much alike; but the latter is called so from being made of green and fresh trees; whereas common tar is made of dead trees: the burning is done in the same manner as in Finland. They use only black firs; for the white firs will not serve this purpose, though they are excellent for boards, masts, &c. Green tar is dearer than common tar. It is already a pretty general complaint, that the fir woods are almost wholly destroyed by this practice.

Rice is planted in great quantity in Carolina; it succeeds best in marshy and swampy grounds, which may be laid under water, and likewise ripens there the soonest. Where these cannot be had, they must choose a dry soil; but the rice produced here, will be much inferior to the other; the land on which it is cultivated must never be manured. In Carolina they sow it in the middle of April, and it is ripe in September: it is planted in rows like pease, and commonly fifteen inches space is left between the rows; as soon as the plants are come up, the field is laid under water. This not only greatly forwards the growth of the rice, but likewise kills all weeds, so as to render weeding unnecessary. The straw of rice is said to be excellent food for cattle, who eat it very greedily. Rice requires a hot climate, and therefore it will not succeed well in Virginia, the summer there being too short, and the winter too cold; and much less will it grow in Pennsylvania. They are as yet ignorant in Carolina of the art of making arrack from rice: it is chiefly South Carolina that produces the greatest quantity of rice; and on the other hand they make the most tar in North Carolina.

Nov. 7th. The stranger from Carolina, whom I have mentioned before, had met with many oyster shells at the bottom of a well, seventy English miles distant from the sea, and four from a river: they lay in a depth of fourteen English feet from the surface of the earth: the water in the well was brackish; but that in the river was fresh. The same man, had at the building of a saw-mill, a mile and a half from a river,

found, first sand and then clay filled with oyster shells. Under these he found several bills of sea-birds as he called them, which were already quite petrified: they were probably *glossopetræ*.

There are two species of foxes in the English colonies, the one grey and the other red: but in the sequel I shall shew that there are others which sometimes appear in Canada. The grey foxes are here constantly, and are very common in Pennsylvania and in the southern provinces: in the northern ones they are pretty scarce, and the French in Canada call them Virginian foxes on that account: in size they do not quite come up to our foxes. They do no harm to lambs: but they prey upon all sorts of poultry, whenever they can come at them. They do not however seem to be looked upon as animals that cause a great deal of damage; for there is no reward given for killing them: their skin is greatly sought for by hatters, who employ the hair in their work. People have their clothes lined with it sometimes: the grease is used against all sorts of rheumatic pains. These foxes are said to be less nimble than the red ones: they are sometimes tamed; though they be not suffered to run about, but are tied up. Mr. Catesby has drawn and described this sort of foxes in his Natural History of Carolina, by the name of the grey American fox, vol. 2. p. 78. tab. 78. A skin of it was sold in Philadelphia for two shillings and sixpence in Pennsylvanian currency.

The red foxes are very scarce here: they are entirely the same with the European sort. Mr. Bartram and several others assured me, that, according to the unanimous testimony of the Indians, this kind of foxes never was in the country before the Europeans settled in it. But of the manner of their coming over I have two different accounts: Mr. Bartram and several other people were told by the Indians, that these foxes came into America soon after the arrival of the Europeans, after an extraordinary cold winter, when all the sea to the northward was frozen: from whence they would infer, that they could perhaps get over to America upon the ice, from Greenland or the northern parts of Europe and Asia. But Mr. Evans, and some others, assured me, that the following account was still known by the people. A gentleman of fortune in New England, who had a great inclination for hunting, brought over a great number of foxes from Europe, and let them loose in his territories, that he might be able to indulge his passion for hunting*. This is said to have happened almost at the very beginning of New England's being peopled with European inhabitants. These foxes were believed to have so multiplied, that all the red foxes in the country were their offspring. At present they are reckoned among the noxious creatures in these parts; for they are not contented, as the grey foxes, with killing fowl; but they likewise devour the lambs. In Pennsylvania therefore there is a reward of two shillings for killing an old fox, and of one shilling for killing a young one. And in all other provinces there are likewise rewards offered for killing them. Their skin is in great request, and is sold as dear as that of the grey foxes, that is, two shillings and six-pence in Pennsylvanian currency.

* Neither of these accounts appear to be satisfactory; and therefore I am inclined to believe that these red foxes originally came over from Asia, (most probably from Kamtschatka, where this species is common. See Miller's account of the navigations of the Russians, &c.) though in remote times, and thus spread over North America. It is perhaps true that the Indians never took notice of them till the Europeans were settled among them; this, however, was because they never had occasion to use their skins: but when there was a demand for these they began to hunt them, and, as they had not been much accustomed to them before, they esteemed them as a novelty. What gives additional confirmation to this is, that when the Russians, under Commodore Bering, landed on the western coast of America, they saw five red foxes which were quite tame, and seemed not to be in the least afraid of men: now this might very well have been the case, if we suppose them to have been for many generations in a place where nobody disturbed them; but we cannot account for it, if we imagine that they had been used to a country where there were many inhabitants, or where they had been much hunted. F.

They have two sorts of wolves here, which however seem to be of the same species. For some of them are yellowish, or almost pale grey, and others are black or dark brown. All the old Swedes related, that during their childhood, and still more at the arrival of their fathers, there were excessive numbers of wolves in the country, and that their howling and yelping might be heard all night. They likewise frequently tore in pieces, sheep, hogs, and other young and small cattle. About that time or soon after, when the Swedes and the English were quite settled here, the Indians were attacked by the small-pox: this disease they got from the Europeans, for they knew nothing of it before: it killed many hundreds of them, and most of the Indians, of the country, then called New Sweden, died of it. The wolves then came, attracted by the stench of so many corpses, in such great numbers that they devoured them all, and even attacked the poor sick Indians in their huts, so that the few healthy ones had enough to do to drive them away; but since that time they have disappeared, so that they are now seldom seen, and it is very rarely that they commit any disorders. This is attributed to the greater cultivation of the country, and to their being killed in great numbers. But further up the country, where it is not yet so much inhabited, they are still very abundant. On the coasts of Pennsylvania and New Jersey, the sheep stay all night in the fields, without the people's fearing the wolves: however, to prevent their multiplying too much, there is a reward of twenty shillings in Pennsylvania, and of thirty in New Jersey, for delivering in a dead wolf, and the person that brings it may keep the skin. But for a young wolf the reward is only ten shillings of the Pennsylvanian currency. There are examples of these wolves being made as tame as dogs.

The wild oxen have their abode principally in the woods of Carolina, which are far up in the country. The inhabitants frequently hunt them, and salt their flesh like common beef, which is eaten by servants and the lower class of people. But the hide is of little use, having too large pores to be made use of for shoes. However the poorer people in Carolina spread these hides on the ground instead of beds.

The viscum filamentosum, or fibrous mistletoe, is found in abundance in Carolina; the inhabitants make use of it as straw in their beds, and to adorn their houses; the cattle are very fond of it: it is likewise employed in packing goods.

The spartium scoparium grew in Mr. Bartram's garden from English seeds; he said that he had several bushes of it, but that the frost in the cold winters here had killed most of them: they however grow spontaneously in Sweden.

Mr. Bartram had some truffles, or Linnæus's lycoperdon tuber, which he had got out of a sandy soil in New Jersey, where they are abundant. These he shewed to his friend from Carolina, and asked him whether they were the tuckahoo of the Indians. But the stranger denied it, and added, that though these truffles were likewise very common in Carolina, yet he had never seen them used any other way but in milk, against the dysentery; and he gave us the following description of the tuckahoo. It grows in several swamps and marshes, and is commonly plentiful. The hogs greedily dig up its roots with their noses in such places; and the Indians in Carolina likewise gather them in their rambles in the woods, dry them in the sun-shine, grind them, and bake bread of them. Whilst the root is fresh it is harsh and acrid, but being dried it loses the greatest part of its acrimony. To judge by these qualities the tuckahoo may very likely be the arum virginianum. Compare with this account, what shall be related in the sequel of the tåhim and tuckah.

After dinner I again returned to town.

Nov. 8th. Several English and Swedish œconomists kept bee-hives, which afforded their possessors profit: for bees succeed very well here: the wax was for the most part sold

fold to trademen : but the honey they made use of in their own families, in different ways. The people were unanimous, that the common bees were not in North America before the arrival of the Europeans ; but that they were first brought over by the English who settled here. The Indians likewise generally declare, that their fathers had never seen any bees either in the woods or any where else, before the Europeans had been several years settled here. This is further confirmed by the name which the Indians give them : for having no particular name for them in their language, they call them English flies, because the English first brought them over ; but at present they fly plentifully about the woods of North America. However it has been observed, that the bees always, when they swarm, spread to the southward, and never to the northward. It seems as if they do not find the latter countries so good for their constitution : therefore they cannot stay in Canada, and all that have been carried over thither, died in winter. It seemed to me as if the bees in America were somewhat smaller than ours in Sweden. They have not yet been found in the woods on the other side of the Blue Mountains, which confirms the opinion of their being brought to America of late. A man told Mr. Bartram, that on his travels in the woods of North America, he had found another sort of bees, which, instead of separating their wax and honey, mixed it both together in a great bag. But this account wants both clearing up and confirming.

Nov. 9th. All the old Swedes and Englishmen, born in America, whom I ever questioned, asserted that there were not near so many birds fit for eating at present, as there used to be when they were children, and that their decrease was visible. They even said, that they had heard their fathers complain of this, in whose childhood the bays, rivers, and brooks were quite covered with all sorts of water fowl, such as wild geese, ducks, and the like. But at present there is sometimes not a single bird upon them ; about sixty or seventy years ago, a single person could kill eighty ducks in a morning ; but at present you frequently wait in vain for a single one. A Swede above ninety years old assured me, that he had in his youth killed twenty-three ducks at a shot.

This good luck nobody is likely to have at present, as you are forced to ramble about for a whole day without getting a sight of more than three or four. Cranes * at that time came hither by hundreds in the spring : at present there are but very few. The wild turkeys and the birds, which the Swedes in this country call partridges and hazel-hens, were in whole flocks in the woods. But at this time a person is tired with walking before he can start a single bird.

The cause of this diminution is not difficult to find. Before the arrival of the Europeans, the country was uncultivated, and full of great forests. The few Indians that lived here seldom disturbed the birds ; they carried on no trade among themselves, iron and gunpowder were unknown to them. One hundredth part of the fowl which at that time were so plentiful here, would have sufficed to feed the few inhabitants ; and considering that they cultivated their small maize fields, caught fish, hunted stags, beavers, bears, wild cattle, and other animals whose flesh was delicious to them, it will soon appear how little they disturbed the birds. But since the arrival of great crowds of Europeans, things are greatly changed ; the country is well peopled, and the woods are cut down ; the people increasing in this country, they have by hunting and shooting

* When Captain Amadas, the first Englishman that ever landed in North America, set foot on shore (to use his own words) such a flock of cranes (the most part white) arose under us with such a cry, redoubled by many echoes, as if an army of men had shouted altogether.

in part extirpated the birds, in part scared them away: in spring the people still take both eggs, mothers, and young indifferently, because no regulations are made to the contrary; and if any had been made, the spirit of freedom which prevails in the country would not suffer them to be obeyed. But though the eatable birds have been diminished greatly, yet there are others, which have rather increased than decreased in number since the arrival of the Europeans: this can most properly be said of a species of daws, which the English call blackbirds*, and the Swedes, maize thieves; Dr. Linnæus calls them *gracula quiscula*; and together with them, the several sorts of squirrels among the quadrupeds have spread; for these and the former live chiefly upon maize, or at least they are most greedy of it. But as population increases, the cultivation of maize increases, and of course the food of the above mentioned animals is more plentiful: to this it is to be added, that these latter are rarely eaten, and therefore they are more at liberty to multiply their kind. There are likewise other birds which are not eaten, of which at present there are nearly as many as there were before the arrival of the Europeans. On the other hand, I heard great complaints of the great decrease of eatable fowl, not only in this province, but in all the parts of North America, where I have been.

Aged people had experienced that with the fish, which I have just mentioned of the birds: in their youth, the bays, rivers, and brooks, had such quantities of fish, that at one draught in the morning they caught as many as a horse was able to carry home. But at present things are greatly altered; and they often work in vain all the night long with all their fishing tackle. The causes of this decrease of fish are partly the same with those of the diminution of the number of birds; being of late caught by a greater variety of contrivances, and in different manners than before. The numerous mills on the rivers and brooks likewise contribute to it in part; for it has been observed here, that the fish go up the river in order to spawn in a shallow water; but when they meet with works that prevent their proceeding, they turn back and never come again. Of this I was assured by a man of fortune at Boston: his father was used to catch a number of herrings throughout the winter, and almost always in summer, in a river, upon his country seat: but he having built a mill with a dyke in this water, they were lost. In this manner they complained here and every where of the decrease of fish. Old people asserted the same in regard to oysters at New York; for though they are still taken in considerable quantity, and are as big and as delicious as can be wished, yet all the oyster-catchers own, that the number diminishes greatly every year; the most natural cause of it is probably the immoderate catching of them at all times of the year.

Mr. Franklin told me, that in that part of New England where his father lived, two rivers fell into the sea, in one of which they caught great numbers of herrings, and in the other not one. Yet the places where these rivers discharged themselves into the sea were not far asunder. They had observed that when the herrings came in spring to deposit their spawn, they always swam up the river, where they used to catch them, but never came into the other. This circumstance led Mr. Franklin's father, who was settled between the two rivers, to try whether it was not possible to make the herrings likewise live in the other river. For that purpose he put out his nets, as they were coming up for spawning, and he caught some. He took the spawn out of them, and carefully carried it across the land into the other river. It was hatched, and the consequence was, that every year afterwards they caught more herrings in that river; and

* Properly shining blackbirds.

this is still the case. This leads one to believe that the fish always like to spawn in the same place where they were hatched, and from whence they first put out to sea; being as it were accustomed to it.

The following is another peculiar observation. It has never formerly been known that codfish were to be caught at Cape Hinlopen: they were always caught at the mouth of the Delaware; but at present they are numerous in the former place. From hence it may be concluded, that fish likewise change their places of abode of their own accord.

A captain of a ship who had been in Greenland, asserted from his own experience, that on passing the seventieth degree of north latitude, the summer heat was there much greater than it is below that degree. From hence he concluded, that the summer heat at the pole itself must be still more excessive, since the sun shines there for such a long space of time without ever setting. The same account, with similar consequences drawn from thence, Mr. Franklin had heard of the ship-captains in Boston, who had sailed to the most northern parts of this hemisphere. But still more astonishing is the account he got from Captain Henry Atkins, who still lives at Boston. He had for some time been upon the fishery along the coasts of New England. But not catching as much as he wished, he sailed north, as far as Greenland. At last he went so far, that he discovered people, who had never seen Europeans before (and what is more astonishing) who had no idea of the use of fire, which they had never employed; and if they had known it, they could have made no use of their knowledge, as there were no trees in the country. But they eat the birds and fish which they caught quite raw. Captain Atkins got some very scarce skins in exchange for some trifles.

It is already known from several accounts of voyages, that to the northward neither trees nor bushes, nor any ligneous plants, are to be met with, fit for burning. But is it not probable that the inhabitants of so desolate a country, like other northern nations which we know, burn the train-oil of fishes, and the fat of animals in lamps, in order to boil their meat, to warm their subterraneous caves in winter, and to light them in the darkest season of the year? else their darkness would be insupportable.

Nov. 11th. In several writings we read of a large animal, which is to be met with in New England, and other parts of North America. They sometimes dig very long and branched horns out of the ground in Ireland, and nobody in that country, or any where else in the world, knows an animal that has such horns. This has induced many people to believe that it is the moose-deer, so famous in North America, and that the horns found were of animals of this kind, which had formerly lived in that island, but were gradually destroyed. It has even been concluded, that Ireland, in distant ages, either was connected with North America, or that a number of little islands, which are lost at present, made a chain between them. This led me to enquire, whether an animal with such excessive great horns, as are described to the moose-deer, had ever been seen in any part of this country. Mr. Bartram told me, that, notwithstanding he had carefully enquired to that purpose, yet there was no person who could give him any information which could be relied upon; and therefore, he was entirely of opinion, that there was no such an animal in North America. Mr. Franklin related, that he had, when a boy, seen two of the animals which they call moose-deer, but he well remembered that they were not near of such a size as they must have been, if the horns found in Ireland were to fit them: the two animals which he saw, were brought to Boston, in order to be sent to England to Queen Anne. The height of the animal up to the back was that of a pretty tall horse, but the head and its horns were still higher: Mr. Dudley has given a description of the moose-deer which is found in
North

North America. On my travels in Canada, I often enquired of the Frenchmen, whether there had ever been seen so large an animal in this country, as some people say there is in North America, and with such great horns as are sometimes dug out in Ireland. But I was always told, that they had never heard of it, and much less seen it: some added, that if there was such an animal, they certainly must have met with it in some of their excursions in the woods. There are elks here, which are either of the same sort with the Swedish ones, or a variety of them: of these they often catch some which are larger than common, whence perhaps the report of the very large animal with excessive horns in North America first had its rise. These elks are called *originals* by the French in Canada, which name they have borrowed from the Indians: perhaps Dudley, in describing the moose-deer, meant no other animals than these large elks*.

Mr. Franklin gave me a piece of a stone, which, on account of its indestructibility in the fire, is made use of in New England for making melting furnaces and forges.

It consists of a mixture of lapis ollaris, or serpentine stone, and of asbest. The greatest part of it is a grey serpentine stone, which is fat and smooth to the touch, and is easily cut and worked. Here and there are some glittering speckles of that sort of asbest, whose fibres come from a center like rays, or star asbest. This stone is not found in strata or solid rocks, but here and there scattered on the fields.

Another stone is called soapstone by many of the Swedes, being as smooth as soap on the outside. They make use of it for rubbing spots out of their cloaths. It might be called *saxum talcosum particulis spataceis granatisque immixtis*, or a talc with mixed particles of spar and garnets. A more exact description I reserve for another work. At present I only add, that the ground-colour is pale green, with some dark spots, and sometimes a few of a greenish hue. It is very smooth to the touch, and runs always waved. It is likewise easily sawed and cut, though it is not very smooth. I have seen large stones of it which were a fathom and more long, proportionably broad, and commonly six inches or a foot deep. But I cannot determine any thing of their original size, as I have not been at the place where they are dug, and have only seen the stones at Philadelphia, which are brought there ready cut. The particles of talc in this stone are about thirty times as many as those of spar and garnet. It is found in many parts of the country, for example, in the neighbourhood of Chester in Pennsylvania. The English likewise call it soapstone†, and it is likely that the Swedes have borrowed that name from them.

This stone was chiefly employed in the following manner. First, the people took spots out of their cloaths with it. But, for this purpose, the whole stone is not equally useful, for it includes in its clear particles some dark ones which consist wholly of serpentine stone, and may easily be cut with a knife; some of the loose stone is scraped off like a powder, and strewed upon a greasy spot, in silk or any other stuff; this imbibes the grease, and after rubbing off the powder the spot disappears: and as this stone is likewise very durable in the fire, the country people make their hearths with it, especially the place where the fire lies, and where the heat is the greatest, for the stone stands

* What gives still more weight to Mr. Kalm's opinion of the elk being the moose-deer, is, the name *musu*, which the Algonkins give to the elk, as Mr. Kalm himself observes in the sequel of his work; and this circumstance is the more remarkable, as the Algonkins, before the Irokees, or Five Nations, got so great a power in America, were the most powerful nation in the northern part of this continent; insomuch that, though they be now reduced to an inconsiderable number, their language is however a kind of universal language in North America; so that there is no doubt that the elk is the famous moose-deer. F.

† It seems to be either the substance commonly called French chalk, or perhaps the soap-rock, which is common in Cornwall, near the Lizard point, and which consists, besides of some particles of talc, chiefly of an earth like magnesia; which latter, with acid of vitriol, yields an earthy vitriolic salt, or Epsom salt. F.

the strongest fire. If the people can get a sufficient quantity of this stone, they lay the steps before the houses with it, instead of bricks, which are generally used for that purpose.

The walls round the court-yards, gardens, burying-places, and those for the sloping cellar-doors towards the street, which are all commonly built of brick, are covered with a coping of this stone; for it holds excellently against all the effects of the sun, air, rain, and storm, and does not decay, but secures the bricks. On account of this quality, people commonly get the door-posts, in which their hinges are fastened, made of this stone; and in several public buildings, such as the house of assembly for the province, the whole lower wall is built of it, and in other houses the corners are laid out with it.

The salt which is used in the English North American colonies, is brought from the West Indies. The Indians have in some places salt springs, from which they get salt by boiling. I shall in the sequel have occasion to describe some of them. Mr. Franklin was of opinion, that the people in Pennsylvania could easier make good salt of sea water, than in New England, where sometimes salt is made of the sea water on their coast; though their situation is more northerly. Lead-ore has been discovered in Pennsylvania, but as it is not to be met with in quantity, nobody ever attempted to use it. Loadstones of considerable goodness have likewise been found; and I myself possess several pretty pieces of them.

Iron is dug in such great quantities in Pennsylvania, and in the other American provinces of the English, that they could provide with that commodity not only England, but almost all Europe, and perhaps the greater part of the globe. The ore is here commonly infinitely easier got in the mines than our Swedish ore. For in many places, with a pick-axe, a crow-foot, and a wooden club, it is got with the same ease with which a hole can be made in a hard soil: in many places the people know nothing of boring, blasting, and firing; and the ore is likewise very fusible. Of this iron they get such quantities, that not only the numerous inhabitants of the colonies themselves have enough of it, but great quantities are sent to the West Indies, and they have lately began even to trade to Europe with it. This iron is reckoned better for ship-building than our Swedish iron, or any other, because salt water does not corrode it so much. Some people believed, that, without reckoning the freight, they could sell their iron in England at a lower rate than any other nation; especially when the country becomes better peopled, and labour cheaper.

The mountain flax *, or that kind of stone, which Bishop Browallius calls *amiantus fibris separabilibus molliusculis*, in his lectures on mineralogy, which were published in 1739, or the amiant with soft fibres, which can easily be separated, is found abundantly in Pennsylvania. Some pieces are very soft, others pretty tough: Mr. Franklin told me, that, twenty and some odd years ago, when he made a voyage to England, he had a little purse with him, made of the mountain flax of this country, which he presented to Sir Hans Sloane. I have likewise seen paper made of this stone; and I have likewise received some small pieces of it, which I keep in my cabinet. Mr. Franklin had been told by others, that, on exposing this mountain flax to the open air in winter, and leaving it in the cold and wet, it would grow together, and more fit for spinning. But he did not venture to determine how far this opinion was grounded.

* *Amiantus (Asbestus) fibrosus, fibris separabilibus flexilibus tenacibus*, Linn. Syft. Nat. p. 55.

Amiantus fibris mollibus parallelis facile separabilibus, Wall. Min. 140

Mountain flax, *linum montanum*, Forster's Mineralogy, p. 17. F.

On this occasion he related a very pleasant accident which happened to him with this mountain flax: he had, several years ago, got a piece of it, which he gave to one of his journeymen printers, in order to get it made into a sheet at the paper mill. As soon as the fellow brought the paper, Mr. Franklin rolled it up, and threw it into the fire, telling the journeyman he would see a miracle, a sheet of paper which did not burn: the ignorant fellow asserted the contrary, but was greatly astonished upon seeing himself convinced. Mr. Franklin then explained to him, though not very clearly, the peculiar qualities of the paper. As soon as he was gone, some of his acquaintance came in, who immediately knew the paper. The journeyman thought he would shew them a great curiosity and astonish them. He accordingly told them, that he had curiously made a sheet of paper which would not burn, though it was thrown into the fire. They pretended to think it impossible, and he as strenuously maintained his assertion. At last they laid a wager about it; but whilst he was busy with stirring up the fire, the others silyly besmeared the paper with fat: the journeyman, who was not aware of it, threw it into the fire, and that moment it was all in flames: this astonished him so much, that he was almost speechless; upon which they could not help laughing, and so discovered the whole artifice.

In several houses of the town, a number of little ants run about, living under ground, and in holes in the wall. The length of their bodies is one geometrical line. Their colour is either black or dark red: they have the custom of carrying off sweet things, if they can come at them, in common with the ants of other countries. Mr. Franklin was much inclined to believe that these little insects could by some means communicate their thoughts or desires to each other, and he confirmed his opinion by some examples. When an ant finds some sugar, it runs immediately under ground to its hole, where, having stayed a little while, a whole army comes out, unites and marches to the place where the sugar is, and carries it off by pieces; or if an ant meets with a dead fly, which it cannot carry alone, it immediately hastens home, and soon after some more come out, creep to the fly, and carry it away. Some time ago Mr. Franklin put a little earthen pot with treacle into a closet. A number of ants got into the pot, and devoured the treacle very quickly. But as he observed it, he shook them out, and tied the pot with a thin string to a nail which he had fastened in the ceiling; so that the pot hung down by the string. A single ant by chance remained in the pot: this ant eat till it was satisfied; but when it wanted to get off, it was under great concern to find its way out: it ran about the bottom of the pot, but in vain: at last it found, after many attempts, the way to get to the ceiling by the string. After it was come there, it ran to the wall, and from thence to the ground. It had hardly been away for half an hour, when a great swarm of ants came out, got up to the ceiling, and crept along the string into the pot, and began to eat again: this they continued till the treacle was all eaten: in the mean time, one swarm running down the string, and the other up.

Nov. 12th. A man of fortune, who has long been in this province, asserted, that, by twenty years experience, he had found a confirmation of what other people have observed with regard to the weather, viz. that the weather in winter was commonly foretold by that on the first of November, old stile, or twelve new stile; if that whole day be fair, the next winter will bring but little rain and snow along with it; but if the first half of the day be clear, and the other cloudy, the beginning of winter would accordingly be fair, but its end, and spring, would turn out rigorous and disagreeable: of the same kind were the other presages. I have likewise in other places heard of similar signs of the weather; but as a mature judgment greatly lessens

the confidence in them, so the meteorological observations have sufficiently shewn, how infinitely often these prophecies have failed.

Pensylvania abounds in springs, and you commonly meet with a spring of clear water on one or the other, and sometimes on several sides of a mountain. The people near such springs use them for every purpose of a fine spring water. They also conduct the water into a little stone building near the house, where they can confine it, and bring fresh supplies at pleasure. In summer they place their milk, bottles of wine, and other liquors, in this building, where they keep cool and fresh. In many country houses, the kitchen or buttery was so situated, that a rivulet ran under it, and had the water near at hand.

Not only people of fortune, but even others that had some possessions, commonly had fish-ponds in the country near their houses. They always took care that fresh water might run into their ponds, which is very salutary for the fish: for that purpose the ponds were placed near a spring on a hill.

Nov. 13th. I saw, in several parts of this province, a ready method of getting plenty of grass to grow in the meadows. Here must be remembered what I have before mentioned about the springs, which are sometimes found on the sides of hills, and sometimes in vallies. The meadows lie commonly in the vallies between the hills: if they are too swampy and wet, the water is carried off by several ditches. But the summer in Pensylvania is very hot; and the sun often burns the grass so much, that it dries up entirely. The husbandmen therefore have been very attentive to prevent this in their meadows: to that purpose they look for all the springs in the neighbourhood of a meadow; and as the rivulets flowed before by the shortest way into the vallies, they raise the water as much as possible and necessary, to the higher part of meadow, and make several narrow channels from the brook, down into the plain, so that it is entirely watered by it. When there are some deeper places, they frequently lay wooden gutters across them, through which the water flows to the other side; and from thence it is again, by very narrow channels, carried to all the places where it seems necessary. To raise the water the higher, and in order to spread it more, there are high dykes built near the springs, between which the water rises till it is so high as to run down where the people want it. Industry and ingenuity went further: when a brook runs in a wood, with a direction not towards the meadow, and it has been found, by levelling, and taking an exact survey of the land between the meadow and the rivulet, that the latter can be conducted towards the former; a dyke is made, which hems the course of the brook, and the water is led round the meadow, over many hills, sometimes for the space of an English mile and further, partly across vallies in wooden pipes, till at last it is brought where it is wanted, and where it can be spread as above mentioned. One that has not seen it himself, cannot believe how great a quantity of grass there is in such meadows, especially near the little channels; whilst others, which have not been thus managed, look wretchedly. The meadows commonly lie in the vallies, and one or more of their sides have a declivity. The water can therefore easily be brought to run down in them. These meadows, which are so carefully watered, are commonly mowed three times every summer. But it is likewise to be observed, that summer continues seven months here. The inhabitants seldom fail to employ a brook or spring in this manner, if it is not too far from the meadows to be led to them.

The leaves were at present fallen from all the trees; both from oaks, and from all those which have deciduous leaves, and they covered the ground in the wood six inches deep. The great quantity of leaves which drop annually would necessarily seem to

increase the upper black mould greatly. However, it is not above three or four inches thick in the woods, and under it lays a brick-coloured clay, mixed with a sand of the same colour. It is remarkable, that a soil which, in all probability, has not been stirred, should be covered with so little black mould: but I shall speak of this in the sequel.

Nov. 14th. The squirrels, which run about plentifully in the woods, are of different species; I here intend to describe the most common sorts more accurately.

The grey squirrels are very plentiful in Pennsylvania, and in the other provinces of North America. Their shape corresponds with that of our Swedish squirrel; but they differ from them by keeping their grey colour all the year long, and in size being something bigger. The woods in all these provinces, and chiefly in Pennsylvania, consist of trees with deciduous leaves, and in such these squirrels like to live. Ray, in his *Synopsis Quadrupedum*, p. 215, and Catesby, in his *Natural History of Carolina*, Vol. 2, p. 74, tab. 74, call it the Virginian greater grey squirrel; and the latter has added a figure after life. The Swedes call it *grao ickorn*, which is the same as the English grey squirrel. Their nests are commonly in hollow trees, and are made of moss, straw, and other soft things: their food is chiefly nuts; as hazel nuts, chinquapins, chesnuts, walnuts, hiccory nuts, and the acorns of the different sorts of oak which grow here; but maize is what they are most greedy of. The ground in the woods is in autumn covered with acorns, and all kinds of nuts which drop from the numerous trees; of these the squirrels gather great stores for winter, which they lay up in holes dug by them for that purpose: they likewise carry a great quantity of them into their nests.

As soon as winter comes, the snow and cold confines them to their holes for several days, especially when the weather is very rough. During this time they consume the little store which they have brought to their nests: as soon therefore as the weather grows milder, they creep out, and dig out part of the store which they have laid up in the ground: of this they eat some on the spot, and carry the rest into their nests on the trees. We frequently observed, that, in winter, at the eve of a great frost, when there had been some temperate weather, the squirrels, a day or two before the frost, ran about the woods in greater numbers than common, partly in order to eat their fill, and partly to store their nests with a new provision for the ensuing great cold, during which they did not venture to come out, but lay snug in their nests: therefore, seeing them run in the woods in greater numbers than ordinary, was a safe prognostic of an ensuing cold.

The hogs which are here driven into the woods, whilst there is yet no snow in them, often do considerable damage to the poor squirrels, by rooting up their store-holes, and robbing their winter provisions. Both the Indians, and the European Americans, take great pains to find out these store-holes, whether in trees or in the ground, as all the nuts they contain are choice, and not only quite ripe, but likewise not pierced by worms. The nuts and acorns which the dormice, or *mus cricetus*, Linn. store up in autumn, are all in the same condition. The Swedes relate, that, in the long winter, which happened here in the year 1741, there fell such a quantity of snow, that the squirrels could not get to their store, and many of them were starved to death.

The damage which these animals do in the maize fields I have already described: they do the more harm, as they do not eat all the corn, but only the inner and sweet part, and as it were take off the husks. In spring, towards the end of April, when the oaks were in full flower, I once observed a number of squirrels on them, sometimes five, six, or more in a tree, who bit off the flower-stalks a little below the flowers,

and dropt them on the ground ; whether they eat any thing off them, or made use of them for some other purpose, I know not ; but the ground was quite covered with oak flowers, to which part of the stalk adhered. For this reason the oaks do not bear so much fruit by far to feed hogs and other animals as they would otherwise do.

Of all the wild animals in this country the squirrels are some of the easiest to tame, especially when they are taken young for that purpose. I have seen them tamed so far that they would follow the boys into the woods, and run about every where, and when tired would sit on their shoulders. Sometimes they only ran a little way into the wood, and then returned home again to the little hole that had been fitted up for them. When they eat, they sit almost upright, hold their food between their fore feet, and their tail bent upwards. When the tame ones got more than they could eat at a time, they carried the remainder to their habitations, and hid it amongst the wool which they lay upon. Such tame squirrels shewed no fear of strangers, and would suffer themselves to be touched by every body, without offering to bite. They sometimes would leap upon strangers' cloaths, and lie still on them, in order to sleep. In the farm-houses, where they were kept, they played with cats and dogs : they likewise eat bread.

The wild grey squirrels likewise hold up their tails when sitting. As soon as they perceive a man, they continually wag their tails and begin to gnash with their teeth, and make a great noise, which they do not readily give over. Those who go a shooting birds and other animals are therefore very angry at them, as this noise discovers them, and alarms the game. Though a grey squirrel does not seem to be very shy, yet it is very difficult to kill, for when it perceives a man, it climbs upon a tree, and commonly chuses the highest about it. It then tries to hide itself behind the trunk, so that the shooter may not see it, and though he goes ever so fast round the tree, yet the squirrel changes its place as quickly, if not quicker ; if two boughs bend towards each other, the squirrel lies in the middle of them, and presses itself so close, that it is hardly visible. You may then shake the tree, throw sticks and stones to the place where it lies, or shoot at it, yet it will never stir. If three branches join, it takes refuge between them, and lies as close to them as possible, and then it is sufficiently safe. Sometimes it escapes on a tree where there are old nests of squirrels, or of large birds ; it slips into such, and cannot be got out, either by shooting, throwing, or any thing else ; for the grey squirrels seldom leap from one tree to another, except extreme danger compels them. They commonly run directly up the trees, and down the same way, with their head straight forward. Several of them which I shot in the woods had great numbers of fleas.

I have already mentioned, that these squirrels are among the animals which at present are more plentiful than they formerly were, and that the infinitely greater cultivation of maize, which is their favourite food, is the cause of their multiplication. However, it is peculiar, that in some years a greater number of squirrels come down from the higher countries into Pennsylvania, and other English colonies. They commonly come in autumn, and are then very busy in the woods gathering nuts and acorns, which they carry into hollow trees or their store-holes, in order to be sufficiently provided with food for winter. They are so diligent in storing up of provisions, that though the nuts have been extremely plentiful this year, yet it is difficult to get a considerable quantity of them. The people here pretended, from their own experience, to know, that when the squirrels came down in such numbers from the higher parts of the country, the winter ensuing was uncommonly rigorous and cold, and for that reason they always look upon their coming down as a sure sign of such a winter. Yet this

this does not always prove true, as I experienced in the autumn of the year 1749: at that time a great number of squirrels came down into the colonies, yet the winter was very mild, and no colder than common. But it appeared that their migration was occasioned by the scarcity of nuts and acorns, which happened that year in the higher parts of the country, and obliged them to come hither for their food. Therefore they generally return the next year to the place from which they came.

Some people reckon squirrel flesh a great dainty, but the generality make no account of it. The skin is good for little, yet small straps are sometimes made of it, as it is very tough; others use it as a fur lining, for want of a better. Ladies shoes are likewise sometimes made of it.

The rattle-snake often devours the squirrels, notwithstanding all their agility. This unwieldy creature is said to catch so agile an one merely by fascination. I have never had an opportunity of seeing how it is done; but so many credible people assured me of the truth of the fact, and asserted that they were present, and paid peculiar attention to it, that I am almost forced to believe their unanimous accounts. The fascination is effected in the following manner: the snake lies at the bottom of the tree upon which the squirrel sits; its eyes are fixed upon the little animal, and from that moment it cannot escape; it begins a doleful outcry, which is so well known, that a person passing by, on hearing it, immediately knows that it is charmed by a snake. The squirrel runs up the tree a little way, comes downwards again, then goes up, and now comes lower again. On that occasion it has been observed, that the squirrel always goes down more than it goes up. The snake still continues at the root of the tree, with its eyes fixed on the squirrel, with which its attention is so entirely taken up, that a person accidentally approaching may make a considerable noise, without the snake's so much as turning about. The squirrel, as before-mentioned, comes always lower, and at last leaps down to the snake, whose mouth is already wide open for its reception. The poor little animal then with a piteous cry runs into the snake's jaws, and is swallowed at once, if it be not too big; but if its size will not allow it to be swallowed at once, the snake licks it several times with its tongue, and by that means makes it fit for swallowing. Every thing else remarkable at this enchantment I have described in a treatise inserted in the Memoirs of the Royal Swedish Academy of Sciences, in the volume for the year 1753. I therefore am not so circumstantial here. The same power of enchanting is ascribed to that kind of snake, which is commonly called the black snake in America, and it is said to catch and devour squirrels in the same manner as the former*.

But these little animals do considerable damage to the maize, not only whilst it is upon the stalk, as I have before observed, but even when it is brought home into the barns; for if they can come at it without any obstacle, they can in a few nights bring a whole bushel away into their lurking holes. The government, in most of the North American colonies, has therefore been obliged to offer a certain premium to be paid out of the common treasury, for the head of a squirrel. It seems inconceivable what a sum of money has been paid for grey and black squirrels heads, in the province of Pennsylvania only, from the first of January 1749 to the first of January

* It has been observed, that only such squirrels and birds as have their nests near the place where such snakes come to, make this pitiful noise, and are so busy in running up and down the tree and the neighbouring branches, in order to draw off the attention of the snake from their brood, and often they come so very near in order to fly away again, that being within reach of the snakes, they are at last bit, poisoned, and devoured; and this will, I believe, perfectly account for the powers of fascinating birds and small creatures in the snakes. F.

1750; for when the deputies from the several districts of the province met, in order to deliberate upon the affairs of the province, each of them complained that their treasures were exhausted by paying so much for squirrels; for at that time the law had appointed a reward of threepence for each squirrel's head. So far extended the vengeance taken upon these little creatures, i. e. upon the grey and black squirrels. It was found, by casting up accounts, that in that one year eight thousand pounds of Pennsylvania currency had been expended in paying these rewards: this I was assured of by a man who had looked over the accounts himself.

Many people, especially young men, left all other employment, and went into the woods to shoot squirrels; but the government, having experienced how much threepence per head took out of the treasury, settled half that sum upon each squirrel's head.

Flying squirrels are a peculiar kind, which seem to be the same with those which inhabit Finland, and which Dr. Linnæus, in his *Fauna Svecica*, No. 38, calls *sciurus volans*. The American flying-squirrel at the utmost is only a variety of that which we have in Finland. Catesby, in his *Natural History of Carolina*, vol. 2, p. 76, 77, has described it, and tab. 76, 77, drawn it after life. He likewise calls it *sciurus volans*. Edwards, in his *Natural History of Birds*, represents it, t. 191. They are met with in the woods, but not very frequently. They are scarce ever seen in the day-time, unless they are forced out by men who have discovered their nests; for they sleep in the day-time, but as soon as it grows dark, they come out, and run about almost all night. They live in hollow trees, and by cutting one down, seven or more flying-squirrels are frequently found in it. By the additional skin with which Providence has provided them on both sides, they can fly from one tree to another. They expand their skins like wings, and contract them again as soon as they can get hold of the opposite tree. Some people say that they fly in a horizontal line; but others asserted that they first went a little downwards, and then rose up again, when they approached the tree to which they would fly: they cannot fly further than four or five fathoms. Among all the squirrels in this country, these are the most easily tamed. The boys carry them to school, or wherever they go, without their ever attempting to escape; if even they put their squirrel aside, it leaps upon them again immediately, creeps either into their bosom, or their sleeve, or any fold of the clothes, and lies down to sleep: its food is the same with that of the grey squirrel.

There is a small species of squirrels abounding in the woods, which the English call ground squirrels. Catesby has described and drawn them from life, in the 2d vol. of his *Natural History of Carolina*, p. 75, tab. 75, and Edwards in his *Natural History of Birds*, t. 181.* He and Dr. Linnæus call it *sciurus striatus*, or the streaked squirrel. These do not properly live in trees, as others of this genus, but dig holes in the ground (much in the same manner as rabbits) in which they live, and whither they take refuge when they perceive any danger. Their holes go deep, and commonly further inwards divide into many branches. They are also cunning enough to make sometimes an opening or hole to the surface of the ground from one of these branches. The advantage they have from hence, is, that when they stroll about for food, and the hole is stopt up through which they went out, they may not expose themselves to be caught,

* It is not yet made out with certainty whether the American flying squirrel, and that found in Finland, and in the north of Europe and Asia, be the same animal. The American kind has a flat pennated tail, but the European kind a round one, which affords a very distinguishing character. F.

but presently find the other hole, into which they may retreat: but in autumn, when the leaves fall from the trees, or some time after, it is diversion to see the consternation they are sometimes in when pursued; for their holes being easily covered with the great fall of leaves, or by the wind, they have a great deal to do, to find them on a sudden: they then run backwards and forwards as if they had lost their way: they seem to know the places where they have made their subterraneous walks, but cannot conceive where the entrances are. If they be then pursued, and one claps his hands, they know no other refuge than that of climbing upon a tree; for it is to be observed that these squirrels always live under ground, and never climb upon trees unless pursued, and unable in the hurry to find their holes. This kind of squirrels is much more numerous in Pennsylvania than in any other province of North America through which I have travelled. Its length is commonly six inches, without the curved tail; and it is very narrow. The skin is ferruginous, or of a reddish brown, and marked with five black streaks, one of which runs along the back, and two on each side. Their food consists of all sorts of corn, as rye, barley, wheat, maize, and of acorns, nuts, &c. They gather their winter provisions in autumn, like the common grey squirrels, and keep them in their holes under ground. If they get into a granary, they do as much mischief as mice and rats. It has often been observed that if, after eating rye, they come to some wheat, they throw up the former, which they do not like so well as the wheat, in order to fill their belly with the latter. When the maize is reaped in the fields, they are very busy in biting off the ears, and filling the pouches in their mouth with corn, so that their cheeks are quite blown up. With this booty they hasten into the holes which they have made in the ground.

As a Swede was making a mill-dyke, pretty late in autumn, he employed for that purpose the soil of a neighbouring hill, and met with a hole on a subterraneous walk belonging to these squirrels: he followed it for some time, and discovered a walk on one side like a branch, parting from the chief stem: it was near two feet long, and at its end was a quantity of choice acorns of the white oak, which the little careful animal had stored up for winter. Soon after he found another walk on the side like the former, but containing a fine store of maize: the next had hickory nuts, and the last and most hidden one contained some excellent chestnuts, which might have filled two hats.

In winter these squirrels are seldom seen, for during that season they live in their subterraneous holes, upon the provisions which they have stored up there. However on a very fine and clear day they sometimes come out. They frequently dig through the ground, into cellars in which the country people lay up their apples, which they partly eat, and partly spoil, so that the master has little or nothing left. They handle the maize stores full as roughly as the apples. But the cats are their great enemies, who devour them and bring them home to their young ones: their flesh is not eaten by men, and their skin is not made use of.

Of all the squirrels in the country, these are the most difficult to be tamed; for, though they be caught very young, yet it is dangerous to touch them with naked hands, as they bite very sharp when one is not aware of them. Many boys, who had lost a deal of time in trying to tame these squirrels, owned that they knew of no art to make them quite tame; at least they are never so far tamed as the other species. In order to do any thing towards taming them, they must be caught when they are very small. Some people kept them in that state in a cage, because they looked very pretty.

I shall take another opportunity of speaking of the black and ferruginous squirrels, which likewise inhabit this country.

Nov.

Nov. 15th. In the morning I returned to Philadelphia. Mr. Cock told me to-day, and on some other occasions afterwards, an accident which happened to him, and which seemed greatly to confirm a peculiar sign of an imminent hurricane. He sailed to the West Indies in a small yacht, and had an old man on board, who had for a considerable time sailed in this sea. The old man sounding the depth, called to the mate to tell Mr. Cock to launch the boats immediately, and to put a sufficient number of men into them, in order to tow the yacht during the calm, that they might reach the island before them, as soon as possible, as within twenty-four hours there would be a strong hurricane. Mr. Cock asked him what reasons he had to think so; the old man replied, that on sounding, he saw the lead in the water at a distance of many fathoms more than he had seen it before; and that therefore the water was become clear all of a sudden, which he looked upon as a certain sign of an impending hurricane in the sea. Mr. Cock likewise saw the excessive clearness of the water. He therefore gave immediate orders for launching the boat, and towing the yacht, so that they arrived before night in a safe harbour. But before they had quite reached it the waves began to rise more and more, and the water was as it were boiling, though no wind was perceptible. In the ensuing night the hurricane came on, and raged with such violence, that not only many ships were lost, and the roofs were torn off from the houses, but even Mr. Cock's yacht and other ships, though they were in safe harbours, were by the wind, and the violence of the sea, washed so far on shore, that several weeks elapsed before they could be got off.

An old Dutch skipper said, that he had once caught a dogfish in the bay of New York, which being cut open, had a quantity of eels in his stomach.

Nov. 18th. Mr. Bartram shewed me an earthen pot, which had been found in a place where the Indians formerly lived. He, who first dug it out, kept grease and fat in it to smear his shoes, boots, and all sorts of leather with: Mr. Bartram bought the pot of that man; it was yet entire and not damaged: I could perceive no glaze or colour upon it, but on the outside it was very much ornamented, and upon the whole well made. Mr. Bartram shewed me several pieces of broken earthen vessels which the Indians formerly made use of. It plainly appeared in all these that they were not made of mere clay; but that different materials had been mixed with it, according to the nature of the places where they were made. Those Indians, for example, who lived near the sea-shore, pounded the shells of snails and muscles, and mixed them with the clay. Others who lived further up in the country, where mountain crystals could be found, pounded them and mixed them with their clay; but how they proceeded in making the vessels, is entirely unknown: it was plain that they did not burn them much, for they were so soft that they might be cut in pieces with a knife: the workmanship however seems to have been very good; for at present they find whole vessels or pieces in the ground, which are not damaged at all, though they have lain in the ground above a century. Before the Europeans settled in North America, the Indians had no other vessels to boil their meat in, than these earthen pots of their own making: but since their arrival, they have always bought pots, kettles, and other necessary vessels, of the Europeans, and take no longer the pains of making some, by which means this art is entirely lost among them. Such vessels of their own construction are therefore a great rarity even among the Indians. I have seen such old pots and pieces of them, consisting of a kind of serpentine stone, or Linnæus's talcum, *Syst. Nat.* 3. p. 52.

Mr. Bartram likewise shewed me little pieces of a black slate, which is plentifully found in some parts of the river Skullkill. There are pieces to be found which are four feet and above square: the colour and configuration is the same as in the table

slate (*schistus tabularis* Linn.) Syst. Nat. 3. p. 37., except that this is a little thicker. The inhabitants of the country thereabouts (in the neighbourhood of the Skullkill) cover their roofs with it; Mr. Bartram assured me, that he had seen a whole roof composed of four such slates. The rays of the sun, heat, cold, and rain do not act upon the stone.

Mr. Bartram further related, that in several parts of the country, caves or holes were to be met with, going deep into the mountains: he had been in several of them, and had often found a number of stalactites, Linnæus's *stalactites stillatitius*, Syst. Nat. 3. p. 183., of different dimensions at the top: they differed in colour, but the greatest curiosity was, that in some of the caves Mr. Bartram had found stalactites, whose outward side was as it were wreathed from top to bottom: he had sent some pieces of it to London, and had none at present.

Nov. 20th. This morning I set out in company of a friend, on a journey to Raccoon in New Jersey, where many Swedes live, who have their own church. We had three miles to go before we came to the ferry which was to bring us over the Delaware. The country here was very low in some places: the plains on the banks of the river were overflowed at every high water or flowing of the tide, and at the ebbing they were left dry again. However the inhabitants of the country hereabouts made use of this plain: for that purpose they had in several places thrown up walls or dykes of earth towards the river, to prevent its overflowing the plains, which they made use of as meadows. On them the water-beeches (*platanus occidentalis* Linn.) were planted in great numbers on both sides the road, quite close together: these in summer afford a pleasant shade, on account of the abundance and size of their leaves, and make the road extremely delightful, as it resembles a fine shady walk. The Delaware has nearly the same breadth here which it has near Philadelphia. Near the place where the ferry is to be met with, several pretty houses were built on both sides, where travellers might get all kinds of refreshment. On our journey from Pennsylvania to New Jersey, we were brought over the Delaware in a ferry belonging to the Pennsylvania-men; but on our return we were obliged to take the ferry belonging to the New Jersey side. As soon as we had crossed the river, we were in a different province; for the Delaware makes the division between Pennsylvania and New Jersey, so that every thing to the west of it belongs to the former, and all to the east, to the latter province. Both these provinces have in most things different laws, and their peculiar coin.

We now pursued our journey further, and soon observed that the country on this side appeared very different from that on the other; for in Pennsylvania the ground consists of more clay and black mould, and is very fertile; but in New Jersey it is more sandy and very poor, so that the horses went very deep in sand in several parts of the road. Near the place where we were brought over, and a little way along the shore, was a thick fir wood: the trees were not very high, but in their greatest vigour: between them appeared now and then a low bush of oak. But after travelling about three English miles, the fir wood ended, and we saw no more trees of this kind till we came to the church in Raccoon. In all the parts of Pennsylvania where I have been, I have found few fir woods; on the other hand, they are abundant in New Jersey, and especially in the lower part of that province. We afterwards found all the day long no other trees than such as have deciduous leaves; most of these were oaks of different sorts, and of considerable height, but they stood every where far enough asunder to admit a chaise to pass through the wood without any inconvenience, there being seldom any shrubs or underwood between the trees, to obstruct the way. In several places flowed a small rivulet. The country was commonly plain, but sometimes formed
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a few hills with an easy declivity, though no high mountains appeared, and in a few places we found some small stones not bigger than a fist. Single farm-houses were scattered in the country, and in one place only was a small village: the country was yet more covered with forests than cultivated, and we were for the greatest part always in a wood.

This day and the next we passed several kills, or small rivulets, which flowed out of the country into the Delaware with no great descent nor rapidity. When the tide came up in the Delaware, it likewise rose in some of these rivulets a good way; formerly they must have spread to a considerable breadth by the flowing of the tide, but at present there were meadows on their banks, formed by throwing up strong dykes as close as possible to the water, to keep it from overflowing. Such dykes were made along all rivers here to confine their water; therefore when the tide was highest, the water in the rivers was much higher than the meadows: in the dykes were gates through which the water can be drawn from, or led into the meadows; they were sometimes placed on the outward side of the wall, so that the water in the meadows forced it open, but the river water shut it.

In the evening we came into the house of a Swede, called Peter Rambo, and we staid the night at his house.

The pines which we had seen to-day, and which I have mentioned before, were of that kind which has double leaves and oblong cones, covered with aculeated scales. The English to distinguish it call it the Jersey pine: commonly there were only two spines or leaves in one fascicle, as in our common Swedish pines, but sometimes three; the cones had long spines so that they were difficult to be touched. These pines look at a distance wholly like the Swedish ones, so that if the cones were not regarded, they might easily be taken for the same species. Of these pines they make a great quantity of tar, of which I shall speak in the sequel; but as most of them are but small, they are good for nothing else; for if they be employed as posts, or poles in the ground, they are in a short time rendered useless by rotting: as soon as they are cut down the worms are very greedy of them; they soon eat through the wood, and only a few weeks after it is cut down; however it is made use of as fuel, where no other wood is to be got, in several places they make charcoal of it, as I intend to mention in the sequel. There is another thing which deserves notice, in regard to these trees, and which several people besides myself have experienced. In the great heat of the summer, the cattle like to stand in the shade of these trees, preferably to that of the oak, hickory, walnut, water-beech, and other trees of this kind, whose foliage is very thick; and when the cattle find the latter with the former, they always choose to stand under the firs and pines, though the other trees with annual deciduous leaves could afford a better shade; and if there be but a single pine in the wood, as many cattle from the herd as can stand under it throng to it. Some people would infer from hence, that the resinous exhalations of these trees were beneficial to the cattle, and which made them more inclined to be near firs and pines than any other trees.

The spoon-tree, which never grows to a great height, we saw this day in several places. The Swedes here have called it thus because the Indians, who formerly lived in these provinces, used to make their spoons and trowels of the wood of this tree. In my cabinet of natural curiosities I have a spoon made of this wood by an Indian, who has killed many stags and other animals on the very spot where Philadelphia afterwards was built; for in his time that spot was yet covered with trees and shrubs. The English call this tree a laurel, because its leaves resemble those of the *laurocerasus*. Dr. Linnæus, conformable to the peculiar friendship and goodness which he has

always honoured me with, has been pleased to call this tree *kalmia foliis ovatis, corymbis terminalibus*, or *kalmia latifolia*. It succeeds best on the side of hills, especially on the north side, where a brook passes by; therefore on meeting with some steep places (on hills) towards a brook, or with a steep side of a hill towards a marsh, you are sure to find the *kalmia*. But it frequently stands mixed among beech-trees. The higher the *kalmias* stand on the north side of a mountain the less they grow: I have seen them not only in Pennsylvania and New Jersey, but even in New York, but there they are more scarce: I never found them beyond the forty-second degree of north latitude, though I took ever so great care to look for them: they have the quality of preserving their fine green leaves throughout winter, so that when all other trees have lost their ornaments, and stand quite naked, these cheer the woods with their green foliage. About the month of May they begin to flower in these parts, and then their beauty rivals that of most of the known trees in nature; the flowers are innumerable, and sit in great bunches. Before they open they have a fine red colour, but as they are expanded the sun bleaches them, so that some are quite white; many preserve the colour of roses. Their shape is singular, for they resemble a crater of the ancients: their scent however is none of the most agreeable. In some places it was customary to adorn the churches on Christmas-day or Newyear's-day with the fine branches of this tree, which are then thick covered with leaves.

But these trees are known for another remarkable quality: their leaves are poison to some animals, and food for others: experience has taught the people that when sheep eat of these leaves, they either die immediately, or fall very sick, and recover with great difficulty. The young and more tender sheep are killed by a small portion, but the elder ones can bear a stronger dose. Yet this food will likewise prove mortal to them, if they take too much of it: the same noxious effect it shews in regard to calves which eat too much of the leaves; they either die, or do not recover easily. I can remember, that in the autumn of the year 1748, some calves eat of the leaves, but fell very sick, swelled, foamed at the mouth, and could hardly stand; however they were cured by giving them gunpowder and other medicines: the sheep are most exposed to be tempted by these leaves in winter; for, after having been kept in stables for some months, they are greedy of all greens, especially if the snow still lies upon the fields, and therefore the green but poisonous leaves of the *kalmia* are to them very tempting. Horses, oxen, and cows, which have eaten them, have likewise been very ill after the meal, and though none of them ever died of eating these leaves, yet most people believed, that if they took too great a portion of them, death would certainly be the result; for it has been observed that when these animals only eat small quantities, yet they suffer great pains. On the other hand, the leaves of the *kalmia* are the food of stags, when the snow covers the ground, and hides all other provisions from them. Therefore, if they be shot in winter, their bowels are found filled with these leaves; and it is very extraordinary, that if those bowels are given to dogs, they become quite stupid, and as it were drunk, and often fall so sick that they seem to be at the point of death; but the people who have eaten the venison have not felt the least indisposition. The leaves of the *kalmia* are likewise the winter food of those birds, which the Swedes in North America call hazel-hens, and which stay here all winter, for when they are killed, their crop is found quite filled with them.

The wood of the *kalmia* is very hard, and some people on that account make the axis of their pullies of it. Weavers' shuttles are chiefly made of it, and the weavers are of opinion, that no wood in this country is better for this purpose; for it is compact, may be made very smooth, and does not easily crack or burst. The joiners and turners
here

here employ it in making all kinds of work which requires the best wood; they chiefly use the root because it is quite yellow: the wood has a very suitable hardness and fineness, and from the centre spreads, as it were, small rays, which are at some distance from each other. When the leaves of the kalmia are thrown into the fire, they make a crackling like salt. The chimney-sweepers make brooms in winter of the branches with the leaves on them, since they cannot get others in that season. In the summer of the year 1750, a certain kind of worms devoured the leaves of almost all the trees in Pennsylvania; yet they did not venture to attack the leaves of the kalmia. Some people asserted, that when a fire happened in the woods it never went further as soon as it came to the kalmias or spoon-trees.

Nov. 21st. The Swedes and all the other inhabitants of the country plant great quantities of maize, both for themselves and for their cattle. It was asserted that it is the best food for hogs, because it makes them very fat, and gives their flesh an agreeable flavour, preferable to all other other meat. I have given in two dissertations upon this kind of corn to the Swedish Royal Academy of Sciences, which stand in their Memoirs for 1751 and 1752.

The wheels of the carts which are here made use of, are composed of two different kinds of wood. The fellys were made of what is called the Spanish oak, and the spokes of the white oak.

The sassafras-tree grows every where in this place. I have already observed several particulars in regard to it, and intend to add a few more here. On throwing some of the wood into the fire it causes a crackling as salt does. The wood is made use of for posts belonging to the inclosures, for it is said to last a long time in the ground: but it is likewise said, that there is hardly any kind of wood which is more attacked by worms than this when it is exposed to the air without cover; and that in a short time it is quite worm-eaten through and through. The Swedes related, that the Indians, who formerly inhabited these parts, made bowls of it. On cutting some part of the sassafras-tree, or its shoots, and holding it to the nose, it has a strong but pleasant smell. Some people peel the root, and boil the peel with the beer which they are brewing, because they believe it wholesome; for the same reason, the peel is put into brandy, either whilst it is distilling, or after it is made.

An old Swede remembered that his mother cured many people of the dropsy by a decoction of the root of sassafras in water, drank every morning; but she used, at the same time, to cup the patient on the feet. The old man assured me, he had often seen people cured by this means, who had been brought to his mother wrapped up in sheets.

When a part of a wood is destined for cultivation the sassafras-trees are commonly left upon it, because they have a very thick foliage, and afford a cool shade to the cattle during the great heats. Several of the Swedes wash and scour the vessels in which they intend to keep cyder, beer, or brandy, with water in which the sassafras root or its peel has been boiled; which they think renders all those liquors more wholesome. Some people get their bed-posts made of sassafras wood, in order to expel the bugs; for its strong scent, it is said, prevents those vermin from settling in them. For two or three years together this has the desired effect, or about as long as the wood keeps its strong aromatic smell; but after that time it has been observed to lose its effect. A joiner shewed me a bed which he had made for himself, the posts of which were of sassafras wood, but as it was ten or twelve years old, there were so many bugs in it that it seemed likely they would not let him sleep peaceably. Some Englishmen related, that some years ago it had been customary in London to drink a
kind

kind of tea of the flowers of *sassafras*, because it was looked upon as very salutary ; but upon recollecting that the same potion was much used against the venereal disease it was soon left off, lest those that used it should be looked upon as infected with that disease. In Pennsylvania some people put chips of *sassafras* into their chests, where they keep all sorts of woollen stuffs, in order to expel the moths (or larvæ, or caterpillars of moths or tinies) which commonly settle in them in summer. The root keeps its smell for a long while : I have seen one which had lain five or six years in the drawer of a table, and still preserved the strength of its scent.

A Swede, named Rambo, related that the Indians formerly dyed all sorts of leather red with the bark of the chefnut oak.

Nov. 22d. Aoke Helm was one of the most considerable Swedes in this place, and his father came over into this country along with the Swedish governor Prince ; he was upwards of seventy years of age. This old man told us, that in his youth there was grass in the woods, which grew very close, and was every where two feet high ; but that it was so much lessened at present that the cattle hardly find food enough, and that therefore four cows now give no more milk than one at that time ; but the causes of this alteration are easy to find. In the younger years of old Helm, the country was little inhabited, and hardly the tenth part of the cattle kept which is at present ; a cow had therefore as much food at that time as ten now have. Further, most kinds of grass here are annual, and do not for several years together shoot up from the same root, as our Swedish grasses : they must sow themselves every year, because the last year's plant dies away every autumn. The great numbers of cattle hinder this sowing, as the grass is eaten before it can produce flowers and fruit. We need not therefore wonder that the grass is so thin on fields, hills, and pastures in these provinces. This is likewise the reason why travellers in New Jersey, Pennsylvania, and Maryland, find many difficulties, especially in winter, to get forwards with their own horses, for the grass in these provinces is not very abundant, because the cattle eat it before it can bring seeds : but more to the north, as in Canada, are a sufficient quantity of perennial grasses ; so wisely has the Creator regulated every thing. The cold parts of the earth naturally bring forth a more durable grass, because the inhabitants want more hay to feed their cattle with, on account of the length of the winter. The southern provinces again have less perennial grass, as the cattle may be in the fields all the winter. However careful œconomists have got seeds of perennial grasses from England, and other European states, and sowed it in their meadows, where they seem to thrive exceedingly well.

The persimon (*diospyros Virginiana*) was pretty common here : I have already mentioned it before, but I intend now to add some more particulars. Some of its fruits began to ripen and to become fit for eating about this time, for they always ripen very late in autumn, and then the people eat them like other fruit : they are very sweet and glutinous, yet have a little astringency : I frequently used to eat a great quantity of them, without feeling the least inconvenience. From the persimon several Englishmen and Swedes brew a very palatable liquor in the following manner. As soon as the fruit is ripe, a sufficient quantity is gathered, which is very easy, as each tree is well stocked with them. These persimon apples are put into a dough of wheat or other flour, formed into cakes, and put into an oven, in which they continue till they are quite baked, and sufficiently dry, when they are taken out again : then, in order to brew the liquor, a pot full of water is put on the fire, and some of the cakes are put in : these become soft by degrees as the water grows warm, and crumble in pieces at last ; the pot is then taken from the fire, and the water in it well stirred about, that
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the cakes may mix with it : this is then poured into another vessel, and they continue to steep and break as many cakes as are necessary for a brewing : the malt is then infused, and they proceed as usual with the brewing. Beer thus prepared is reckoned much preferable to other beer. They likewise make brandy of this fruit in the following manner ; having collected a sufficient quantity of persimons in autumn, they are all together put into a vessel, where they lie for a week till they are quite soft : then they pour water on them, and in that state they are left to ferment of themselves, without promoting the fermentation by any addition. The brandy is then made in the common way, and is said to be very good, especially if grapes (in particular of the sweet sort) which are wild in the woods, be mixed with the persimon fruit. Some persimons are ripe at the end of September, but most of them later, and some not before November and December, when the cold first overcomes their acrimony. The wood of this tree is very good for joiners' instruments, such as planes, handles to chisels, &c., but if after being cut down, it lies exposed to sunshine and rain, it is the first wood which rots, and in a year's time there is nothing left but what is useless. When the persimon trees get once into a field they are not easily got out of it again as they spread so much. I was told, that if you cut off a branch, and put it into the ground, it strikes root ; but in very strong winters these trees often die by frost, and they, together with the peach-trees, bear cold the least of any.

Nov. 23d. Several kinds of gourds and melons are cultivated here : they have partly been originally cultivated by the Indians, and partly brought over by Europeans. Of the gourds there was a kind which were crooked at the end, and oblong in general, and therefore they were called crooked necks (crocknacks) ; they keep almost all winter. There is yet another species of gourds which have the same quality : others again are cut in pieces or slips, drawn upon thread, and dried ; they keep all the year long, and are then boiled or stewed. All sorts of gourds are prepared for eating in different manners, as is likewise customary in Sweden. Many farmers have a whole field of gourds.

Squashes are a kind of gourds, which the Europeans got from the Indians, and I have already mentioned them before. They are eaten boiled, either with flesh or by themselves. In the first case, they are put on the edge of the dish round the meat, they require little care, for into whatever ground they are sown, they grow in it and succeed well. If the seed is put into the fields in autumn it brings squashes next spring, though during winter it has suffered from frost, snow, and wet.

The calabashes are likewise gourds, which are planted in quantities by the Swedes and other inhabitants, but they are not fit for eating, and are made use of for making all sorts of vessels ; they are more tender than the squashes, for they do not always ripen here, and only when the weather is very warm. In order to make vessels of them, they are first dried well ; the seeds, together with the pulpy and spongy matter in which they lie, are afterwards taken out and thrown away ; the shells are scraped very clean within, and then great spoons or ladles, funnels, bowls, dishes, and the like, may be made of them : they are particularly fit for keeping seeds of plants in, which are to be sent over sea, for they keep their power of vegetating much longer, if they be put in calabashes, than by any other means. Some people scrape the outside of the calabashes before they are opened, dry them afterwards, and then clean them within ; this makes them as hard as bones : they are sometimes washed, so that they always keep their white colour.

Most of the farmers in this country sow buck-wheat in the middle of July : it must not be sown later, for in that case the frost ruins it ; but if it be sown before July, it
flowers

flowers all the summer long, but the flowers drop, and no seed is generated. Some people plough the ground twice where they intend to sow buck-wheat; others plough it only once, about two weeks before they sow it. As soon as it is sown the field is harrowed. It has been found by experience, that in a wet year buck-wheat has been most likely to succeed: it stands on the fields till the frost comes on. When the crop is favourable, they get twenty, thirty, and even forty bushels from one. The Swedish churchwarden Ragnilsson, in whose house we were at this time, had got such a crop: they make buck-wheat cakes and pudding. The cakes are commonly made in the morning, and are baked in a frying-pan, or on a stone: are buttered and then eaten with tea or coffee, instead of toasted bread with butter, or toast, which the English commonly eat at breakfast. The buck-wheat cakes are very good, and are likewise usual at Philadelphia and in other English colonies, especially in winter. Buck-wheat is an excellent food for fowls; they eat it greedily, and lay more eggs than they do with other food; hogs are likewise fattened with it. Buck-wheat straw is of no use; it is therefore left upon the field, in the places where it has been thrashed, or it is scattered in the orchards, in order to serve as a manure by putrifying. Neither cattle nor any other animal will eat of it, except in the greatest necessity, when the snow covers the ground, and nothing else is to be met with. But though buck-wheat is so common in the English colonies, yet the French had no right notion of it in Canada, and it was never cultivated among them.

Towards night we found some glow-worms in the wood: their body was linear, consisting of eleven articulations, a little pointed before and behind; the length from head to tail was five and a half geometrical lines; the colour was brown, and the articulations joined in the same manner as in the onisci or woodlice. The antennæ, or feel-horns, were short and filiform, or thread-shaped; and the feet were fastened to the foremost articulations of the body: when the insect creeps, its hindmost articulations are dragged on the ground, and help its motion. The extremity of the tail contains a matter which shines in the dark, with a green light: the insect could draw it in, so that it was not visible. It had rained considerably all day, yet they crept in great numbers among the bushes, so that the ground seemed as it were sown with stars. I shall in the sequel have occasion to mention another kind of insects or flies which shine in the dark, when flying in the air.

Nov. 24th. Holly, or *ilex aquifolium*, grows in wet places, scattered in the forest, and belongs to the rare trees: its leaves are green both in summer and in winter. The Swedes dry its leaves, bruise them in a mortar, boil them in small beer, and take them against the pleurisy.

Red is dyed with Brazil wood, and likewise with a kind of moss, which grows on the trees here; blue is dyed with indigo; but to get a black colour, the leaves of the common field sorrel (*rumex acetosella*) are boiled with the stuff to be dyed, which is then dried, and boiled again with logwood and copperas: the black colour thus produced is said to be very durable. The people spin and weave a great part of their every day's apparel, and dye them in their houses. Flax is cultivated by many people, and succeeds very well, but the use of hemp is not very common.

Rye, wheat, and buck-wheat are cut with the sickle, but oats are mown with a scythe. The sickles which are here made use of are long and narrow, and their sharp edges have close teeth on the inner side. The field lies fallow during a year, and in that time the cattle may graze on it.

All the inhabitants of this place, from the highest to the lowest, have each their orchard, which is greater or less according to their wealth. The trees in it are chiefly
peach

peach trees, apple trees, and cherry trees: compare with this what I have already said upon this subject before.

A little before noon we left this place, and continued our journey, past the Swedish church in Raccoon, to Peils groves. The country on the sides of this road is very sandy in many places, and pretty near level. Here and there appear single farms, yet they are very scarce; and large extensive pieces of ground are still covered with forests, which chiefly consist of several species of oak and hickory. However, we could go with ease through these woods, as there are few bushes (or under-wood) and stones to be met with. It was not only easy to ride in every part of the wood on horseback, but even in most places there was sufficient room for a small coach or a cart.

Nov. 25th. During my stay at Raccoon, at this time and all the ensuing winter, I endeavoured to get the most information from the old Swedes relating to the increase of land, and the decrease of water in these parts; I shall therefore insert the answers here, which I have received to my questions. They are as I got them; and I shall only throw in a few remarks which may serve to explain things: the reader therefore is left at liberty to draw his own inferences and conclusions.

One of the Swedes called King, who was above fifty years of age, was convinced that about this time the little lakes, brooks, springs, and rivers, had much less water than they had when he was a boy. He could mention several lakes on which the people went in large boats in his youth, and had sufficient water even in the hottest summers; but now they were either entirely dried up, or for the greatest part; and in the latter case, all the water was lost in summer. He had himself seen the fish dying in them; and he was apt to believe that at this time it did not rain so much in summer as it did when he was young. One of his relations, who lived about eight miles from the river Delaware, on a hill near a rivulet, had got a well dug in his court yard: at the depth of forty feet they found a quantity of shells of oysters and muscles, and likewise a great quantity of reed and pieces of broken branches. I asked to what causes they ascribed what they had discovered, and I was answered, that some people believed these things had lain there ever since the deluge, and others, that the ground increased.

Peter Rambo, a man who was near sixty years of age, assured me, that in several places at Raccoon, where wells had been dug, or any other work carried deep into the ground, he had seen great quantities of muscle shells and other marine animals. On digging wells, the people have sometimes met with logs of wood at the depth of twenty feet, some of which were petrified, and others as it were burnt. They once found a great spoon in the ground at this depth. Query, Is it not probable that the burnt wood which has been thus dug up was only blackened by a subterraneous mineral vapour? People however have concluded from this, that America has had inhabitants before the deluge. This man (Peter Rambo) further told me, that bricks had been found deep in the ground; but may not the brick-coloured clay (of which the ground here chiefly consists, and which is a mixture of clay and sand) in a hard state have had the appearance of bricks? I have seen such hardened clay, which at first sight is easily mistaken for brick. He likewise asserted, that the water in rivers was still as high as it used to be, as far back as memory could reach; but little lakes, ponds, and waters in marshes are visibly decreased, and many of them dried up.

Maons Keen, a Swede, above seventy years old, asserted, that, on digging a well, he had seen, at the depth of forty feet, a great piece of chestnut wood, together with roots and stalks of reed, and a clayey earth like that which commonly covers the

shores of salt-water bays and coves. This clay had a similar smell and a saline taste. Maons Keen, and several other people, inferred from hence, that the whole country, where Raccoon and Penn's neck are situated, was anciently quite overflowed by the sea. They likewise knew, that, at a great depth in the ground, such a trowel as the Indians make use of, had been found.

Sven Lock, and William Cobb, both above fifty years of age, agreed, that in many places hereabouts, where wells had been dug, they had seen a great quantity of reed, mostly rotten, at the depth of twenty or thirty feet and upwards.

As Cobb made a well for himself, the workmen, after digging twenty feet deep, came upon so thick a branch that they could not get forwards till it was cut in two places; the wood was still very hard. It is very common to find, near the surface of the earth, quantities of all sorts of leaves not quite putrified. On making a dyke some years ago, along the river on which the church at Raccoon stands; and for that purpose cutting through a bank, it was found quite full of oyster shells, though this place is above a hundred and twenty English miles from the nearest sea shore. These men, and all the inhabitants of Raccoon, concluded from this circumstance (of their own accord, and without being led to the thought) that this tract of land was a part of the sea many centuries ago. They likewise asserted, that many little lakes, which in their youth were full of water, even in the hottest season, now hardly formed a narrow brook in summer, except after heavy rains; but it did not appear to them that the rivers had lost any water.

Aoke Helm found (on digging a well) first sand and little stones, to the depth of eight feet; next a pale-coloured clay, and then a black one. At the depth of fifteen feet he found a piece of hard wood, and several pieces of mundick or pyrites. He told me, that he knew several places in the Delaware, where the people went in boats when he was young, but which at present were changed into little islands, some of which were near an English mile in length. These islands derive their origin from a sand or bank in the river; on this the water washes some clay, in which rushes come up, and thus the rest is generated by degrees.

On a meeting of the oldest Swedes in the parish of Raccoon, I obtained the following answers to the questions which I asked them on this account. Whenever they dig a well in this neighbourhood, they always find, at the depth of twenty or thirty feet, great numbers of oyster shells and clams: the latter are, as was above-mentioned, a kind of large shells, which are found in bays, and of which the Indians make their money. In many places, on digging wells, a quantity of rushes and reeds have been found almost wholly undamaged; and once on such an occasion a whole bundle of flax was brought up, found between twenty and thirty feet under ground: it seemed as little damaged as if it had been lately put under ground: all looked at it with astonishment, as it was beyond conception how it could get there; but I believe the good people saw some American plants, such as the wild Virginian flax, or *linum Virginianum*, and the *antirrhinum Canadense*, which look very like common flax; yet it is remarkable that the bundle was really tied together. The Europeans, on their arrival in America, found our common flax neither growing wild nor cultivated by the Indians, how then could this bundle get into the ground? Can it be supposed, that past ages have seen a nation here, so early acquainted with the use of flax? I would rather abide by the opinion, that the above American plants, or other similar ones, have been taken for flax. Charcoal and fire-brands have often been found under ground. The Swedish church-warden, Eric Ragnilsson, told me that he had seen a quantity of them, which had been brought up at the digging of a well:

on such occasions people have often found (at the depth of between twenty and fifty feet) great branches and blocks. There were some spots where, twenty feet under the surface of the earth, the people had found such trowels as the Indians use: from these observations they all concluded, that this tract of land had formerly been the bottom of the sea. It is to be observed, that most of the wells which have hitherto been made, have been dug in new settlements, where the wood was yet standing, and had probably stood for centuries together. From the observations which have hitherto been mentioned, and to which I shall add similar ones in the sequel, we may, with a considerable degree of certainty, conclude that a great part of the province of New Jersey, in ages unknown to posterity, was part of the bottom of the sea, and was afterwards formed by the slime and mud, and the many other things which the river Delaware carries down along with it, from the upper parts of the country: however, Cape May seems to give some occasion for doubts, of which I shall speak in the sequel.

Nov. 27th. The American ever-greens are,

1. *Ilex aquifolium*, holly.
2. *Kalmia latifolia*, the spoon tree.
3. *Kalmia angustifolia*, another species of it.
4. *Magnolia glauca*, the beaver tree. The young trees of this kind only keep their leaves, the others drop them.
5. *Viscum album*, or mistletoe: this commonly grows upon the *nyssa aquatica*, or tupelo tree, upon the *liquidambar styraciflua*, or sweet gum tree, the oak and lime tree, so that their whole summits were frequently quite green in winter.
6. *Myrica cerifera*, or the candleberry tree: of this however only some of the youngest shrubs preserve some leaves, but most of them had already lost them.
7. *Pinus abies*, the pine.
8. *Pinus sylvestris*, the fir.
9. *Cupressus thyoides*, the white cedar.
10. *Juniperus Virginiana*, the red cedar.

Several oaks and other trees dropt their leaves here in winter, which however keep them ever-green, a little more to the south, and in Carolina.

Nov. 30th. It has been observed, that the Europeans in North America, whether they were born in Sweden, England, Germany, or Holland; or in North America, of European parents, always lost their teeth much sooner than common: the women especially were subject to this disagreeable circumstance: the men did not suffer so much from it. Girls, not above twenty years old, frequently had lost half of their teeth, without any hopes of getting new ones. I have attempted to penetrate into the causes of this early shedding of the teeth, but I know not whether I have hit upon a true one. Many people were of opinion that the air of this country hurt the teeth: so much is certain, that the weather can no where be subject to more frequent and sudden changes; for the end of a hot day often turns out piercing cold, and vice versa. Yet this change of weather cannot be looked upon as having any effect upon the shedding of the teeth, for the Indians prove the contrary: they live in the same air, and always keep fine, entire white teeth: this I have seen myself, and have been assured of by every body: others ascribe it to the great quantities of fruit and sweetmeats which are here eaten. But I have known many people who never eat any fruit, and nevertheless had hardly a tooth left.

I then began to suspect the tea, which is drank here in the morning and afternoon, especially by women, and is so common at present, that there is hardly a farmer's wife, or a poor woman, who does not drink tea in the morning: I was confirmed in this opinion, when I took a journey through some parts of the country which were still inhabited by Indians. For Major General Johnson told me at that time, that several of the Indians, who lived close to the European settlements, had learnt to drink tea. And it has been observed, that such of the Indian women, as used themselves too much to this liquor, had, in the same manner as the European women, lost their teeth prematurely, though they had formerly been quite sound. Those again, who had not used tea, preserved their teeth strong and sound to a great age.

I afterwards found, that the use of tea could not entirely cause this accident. Several young women, who lived in this country, but were born in Europe, complained that they lost most of their teeth after they came to America: I asked, whether they did not think that it arose from the frequent use of tea, as it was known that strong tea, as it were, enters into and corrodes the teeth; but they answered, that they had lost their teeth before they had begun to drink tea; but, continuing my enquiries, I found at last a sufficient cause to account for the loss of their teeth: each of these women owned, that they were accustomed to eat every thing hot, and nothing was good, in their opinion, unless they could eat it as fast as it came from the fire. This is likewise the case with the women in the country, who lose their teeth much sooner and more abundantly than the men. They drink tea in greater quantity, and much oftener, in the morning, and even at noon, when the employment of the men will not allow them to sit at the tea-table. Besides that, the Englishmen care very little for tea, and a bowl of punch is much more agreeable to them. When the English women drink tea, they never pour it out of the cup into the faucer, but drink it hot as it is out of the former. The Indian women, in imitation of them, swallow the tea in the same manner. On the contrary, those Indians, whose teeth are sound, never eat any thing hot, but take their meat either quite cold, or only just milk warm.

I asked the Swedish church-warden in Philadelphia, Mr. Bengtson, and a number of old Swedes, whether their parents and countrymen had likewise lost their teeth as soon as the American colonists; but they told me that they had preserved them to a very great age. Bengtson assured me, that his father, at the age of seventy, cracked peach stones and the black walnuts with his teeth, notwithstanding their great hardness, which at this time no body dares to venture at that age. This confirms what I have before said, for at that time the use of tea was not yet known in North America.

No disease is more common here, than that which the English call fever and ague, which is sometimes quotidian, tertian, or quartan. But it often happens, that a person who has had a tertian ague, after losing it for a week or two, gets a quotidian ague in its stead, which after a while again changes into a tertian. The fever commonly attacks the people at the end of August, or beginning of September, and commonly continues during autumn and winter, till towards spring, when it ceases entirely.

Strangers who arrive here commonly are attacked by this sickness the first or second year after their arrival; and it is more violent upon them than upon the natives, so that they sometimes die of it; but if they escape the first time, they have the advantage of not being visited again the next year, or perhaps never any more. It is commonly said here, that strangers get the fever to accustom them to the climate. The natives of European offspring have annual fits of this ague in some parts of the country: some, however, are soon delivered from it; with others, on the contrary, it continues for six months together, and others are afflicted with it till they die. The Indians also suffer

it, but not so violently as the Europeans. No age is secured against it: in those places where it rages annually, you see old men and women attacked with it; and even children in the cradle sometimes not above three weeks old: it is likewise quotidian, tertian, or quartan, with them. This autumn the ague was more violent here than it commonly used to be. People who are afflicted with it look as pale as death, and are greatly weakened, but in general are not prevented from doing their work in the intervals. It is remarkable, that every year there are great parts of the country where this fever rages, and others where scarce a single person has been taken ill. It likewise is worth notice, that there are places where the people cannot remember that it formerly prevailed in their country, though at present it begins to grow more common: yet there was no other visible difference between the several places. All the old Swedes, Englishmen, Germans, &c. unanimously asserted, that the fever had never been so violent, and of such continuance, when they were boys, as it is at present. They were likewise generally of opinion, that about the year 1680, there were not so many people afflicted with it as about this time. However, others equally old were of opinion, that the fever was proportionably as common formerly as it is at present; but that it could not at that time be so sensibly perceived, on account of the scarcity of inhabitants, and the great distance of their settlements from each other; it is therefore probable that the effects of the fever have at all times been equal.

It would be difficult to determine the true causes of this disease: they seem to be numerous, and not always alike: sometimes, and I believe commonly, several of them unite. I have taken all possible care to sound the opinions of the physicians here on that head, and I here offer them to the reader.

Some of them think that the peculiar qualities of the air of this country cause this fever; but most of them assert, that it is generated by the standing and putrid water, which it seems is confirmed by experience. For it has been observed in this country, that such people as live in the neighbourhood of morasses or swamps, or in places where a stagnant, stinking water is to be met with, are commonly infested with the fever and ague every year, and get it more readily than others. And this chiefly happens at a time of the year when those stagnant waters are most evaporated by the excessive heat of the sun, and the air is filled with the most noxious vapours. The fever likewise is very violent in all places which have a very low situation, and where salt water comes up with the tide twice in twenty-four hours, and unites with the stagnant fresh water in the country. Therefore on travelling in summer over such low places where fresh and salt water unite, the nauseous stench arising from thence often forces the traveller to stop his nose. On that account most of the inhabitants of Penn's Neck, and Salem in New Jersey, where the ground has the above-mentioned quality, are annually infested with the fever to a much greater degree than the inhabitants of the higher country. If an inhabitant of the higher part of the country, where the people are free from the fever, removes into the lower parts, he may be well assured that the fever will attack him at the usual time, and that he will get it again every year, as long as he continues in that country. People of the liveliest complexion, on coming into the low parts of the country, and continuing there for some time, have entirely lost their colour and become quite pale. However, this cannot be the sole cause of the fever, as I have been in several parts of the country which had a low situation, and had stagnant waters near them, where the people declared they seldom suffered from this sickness; but these places were about two or three degrees more northerly.

Others were of opinion that diet did very much contribute towards it, and chiefly laid the blame upon the inconsiderate and intemperate consumption of fruit. This is particularly

particularly the case with the Europeans who come into America, and are not used to its climate and its fruit; for those who are born here can bear more, yet are not entirely free from the bad effects of eating too much. I have heard many Englishmen, Germans, and others, speak from their own experience on this account; they owned, that they had often tried, and were certain that after eating a water melon once or twice before they had breakfasted they would have the fever and ague in a few days after. Yet it is remarkable that the French in Canada told me that fevers were less common in that country, though they consumed as many water melons as the English colonies, and that it had never been observed that they occasioned a fever; but that on coming in the hot season to the Illinois, an Indian nation which is nearly in the same latitude with Pennsylvania and New Jersey, they could not eat a water melon without feeling the shaking fits of an ague, and that the Indians therefore warned them not to eat of so dangerous a fruit. Query, Does not this lead us to think that the greater heat in Pennsylvania, and the country of the Illinois, which are both five or six degrees more southerly than Canada, makes fruit in some measure more dangerous? In the English North American colonies, every countryman plants a number of water melons, which are eaten whilst the people make hay, or during the harvest, when they have nothing upon their stomachs, in order to cool them during the great heat, as that juicy fruit seems very proper to give refreshment. In the same manner melons, cucumbers, gourds, squashes, mulberries, apples, peaches, cherries, and such like fruit are eaten here in summer, and all together contribute to the attacks of the ague.

But that the manner of living contributes greatly towards it, may be concluded from the unanimous accounts of old people concerning the times of their childhood; according to which the inhabitants of these parts were at that time not subject to so many diseases as they are at present, and people were seldom sick. All the old Swedes likewise agreed, that their countrymen, who first came into North America, attained to a great age, and their children nearly to the same; but that their grand children, and great grand children did not reach the age of their ancestors, and their health was not near so vigorous and durable. But the Swedes who first settled in America lived very frugally; they were poor, and could not buy rum, brandy, or other strong liquors, which they seldom distilled themselves, as few of them had a distilling vessel. However they sometimes had a good strong beer. They did not understand the art of making cyder, which is now so common in the country: tea, coffee, chocolate, which are at present even the country people's daily breakfast, were wholly unknown to them: most of them had never tasted sugar or punch. The tea which is now drank is either very old or mixed with all sorts of herbs, so that it no longer deserves the name of tea: therefore it cannot have any good effect upon those who use it plentifully; besides, it cannot fail of relaxing the bowels, as it is drank both in the morning and in the afternoon quite boiling hot. The Indians, the offspring of the first inhabitants of this country, are a proof of what I have said. It is well known that their ancestors, at the time of the first arrival of the Europeans, lived to a very great age. According to the common accounts, it was then not uncommon to find people among the Indians, who were above a hundred years old: they lived frugally, and drank pure water: brandy, rum, wine, and all the other strong liquors, were utterly unknown to them; but since the Christians have taught them to drink these liquors, and the Indians have found them too palatable, those who cannot resist their appetites hardly reach half the age of their parents.

Lastly, some people pretended that the loss of many odoriferous plants, with which the woods were filled at the arrival of the Europeans, but which the cattle have now extirpated, might be looked upon as a cause of the greater progress of the fever at present.

The number of those strong plants occasioned a pleasant scent to rise in the woods every morning and evening. It is therefore not unreasonable to think that the noxiousness of the effluvia from putrifying substances was then prevented, so that they were not so dangerous to the inhabitants.

Several remedies are employed against this disease: the jesuit's bark was formerly a certain one, but at present it has not always this effect, though they sell it genuine, and for the very best. Many people accused it of leaving something noxious in the body. Yet it was commonly observed, that when the bark was good, and it was taken as soon as the fever made its appearance, and before the body was weakened, it was almost sure to conquer the fever, so that the cold fits never returned, and no pain or stiffness remained in the limbs; but when the disease is rooted in, and has considerably weakened the patients, or they are naturally very weak, the fever leaves them after using the jesuit's bark, but returns again in a fortnight's time, and obliges them to take the bark again; but the consequence frequently is a pain and a stiffness in their limbs, and sometimes in their bowels, which almost hinders them from walking: this pain continues for several years together, and even accompanies some to the grave. This bad effect is partly attributed to the bark, which can seldom be got genuine here, and partly to the little care which the patients take in using the bark. A man of my acquaintance was particularly dexterous in expelling the ague by the use of the jesuit's bark. His manner of proceeding was as follows: when it was possible, the patient must use the remedy as soon as the fever begun, and before it was settled in his body; but before he took the medicine he was to take a diaphoretic remedy, as that had been found very salutary; and as the fever is frequently of such a nature here as not to make the patient sweat, even when the hot fit is upon him, a perspiration was to be brought about by some other means. To that purpose the patient took his dose on the day when he had his cold fit, and was not allowed to eat any thing at night. The next morning he continued in a warm bed, drank a quantity of tea, and was well covered, that he might perspire plentifully. He continued so till the perspiration ceased, and then left the bed in a hot room, and washed his body with milk-warm water, in order to cleanse it from the impurities that settled on it from the perspiration, and to prevent their stopping up of the pores. The patient was then dried again, and at last he took the bark several times in one day. This was repeated twice or thrice on the days after he had the ague, and it commonly left him without returning, and most people recover so well that they do not look pale after their sickness.

The bark of the root of the tulip tree, or *liriodendron tulipifera*, taken in the same manner as the jesuit's bark, sometimes had a similar effect.

Several people peeled the roots of the *cornus florida*, or dog-wood, and gave this peel to patients; and even some people, who could not be cured by the jesuit's bark, have recovered by the help of this. I have likewise seen people cured of the fever by taking brimstone reduced to powder, and mixed with sugar, every night before they went to bed, and every morning before they got up: they took it three or four times in the intervals, and at each time drank some warm liquor, to wash the powder down. However, others that tried the same remedy did not find much relief from it.

Some people collected the yellow bark of the peach tree, especially that which is on the root, and boiled it in water, till half of it was evaporated by boiling. Of this decoction the patient took every morning about a wine glass full before he had eaten any thing. This liquor has a disagreeable taste, and contracts the mouth and tongue like

like alum; yet several persons at Raccoon, who had tried many remedies in vain, were cured by this.

Others boiled the leaves of the *potentilla reptans*, or of the *potentilla canadensis*, in water, and made the patients drink it before the ague fit came on, and it is well known that several persons have recovered by this means.

The people who are settled upon the river Mohawk in New York, both Indians and Europeans, collect the root of the *geum rivale*, and pound it. This powder some of them boil in water till it is a pretty strong decoction: others only infuse cold water on it and leave it so for a day; others mix it with brandy. Of this medicine the patient is to take a wine glass full on the morning of the day when the fever does not come, before he has eaten any thing. I was assured that this was one of the surest remedies, and more certain than the jesuit's bark.

The people who live near the iron mines declared that they were seldom or never visited by the fever and ague; but when they have the fever they drink the water of such fountains as arise from the iron mines, and have a strong chalybeate taste; and they assured me that this remedy was infallible. Other people therefore who did not live very far from such springs, went to them for a few days, when they had the fever, in order to drink the water, which commonly cured them.

I have already shewn above, that sage mixed with lemon juice has been found very salutary against the ague.

It was however universally remarkable, that that which cures one person of it has no effect upon another.

The pleurisy is likewise a disease which the people of this country are much subject to. The Swedes in this province call it stitches and burning, and they always mean the pleurisy whenever they mention those words. Many of the old Swedes told me that they had heard very little of it when they were young, and that their parents had known still less of it in their childhood; but that it was so common now that many people died every year of it: yet it has been observed, that in some years this disease has been very moderate, and taken few people away with it, whilst in other years it makes great havock: it likewise is more violent in some places than in others.

In the autumn of the year 1728, it swept away many at Penn's Neck, a place below Raccoon, and nearer to the Delaware, where a number of Swedes are settled. Almost all the Swedes there died of it, though they were very numerous. From hence it happened that their children who were left in a very tender age, and grew up among the English children, forgot their mother tongue, so that few of them understand it at present. Since that time, though the pleurisy has every year killed a few people at Penn's Neck, yet it has not carried off any considerable numbers. It rested as it were till the autumn of the year 1748, but then it began to make dreadful havock, and every week six or ten of the old people died. The disease was so violent, that when it attacked a person, he seldom lived above two or three days; and of those who were taken ill with it very few recovered. When the pleurisy was got into a house it killed most of the old people in it: it was a true pleurisy, but it had a peculiarity with it, for it commonly began with a great swelling under the throat and in the neck, and with a difficulty of swallowing. Some people looked upon it as contagious, and others seriously declared, that when it came into a family, not only those who lived in the same house suffered from it, but even such relations as lived far off. There have been several people at Penn's Neck, who, without visiting their sick friends, have got the pleurisy and died of it. I do not dispute the truth of this, though

though I do not agree to the conclusion. The pleurisy was the most violent in November; yet some old people died of it even in the next winter; but children were pretty free from it. The physicians did not know what to make of it, nor how to remedy it.

It is difficult to determine the causes of such violent diseases. An old English surgeon who lived here gave the following reason. The inhabitants of this country drink great quantities of punch and other strong liquors in summer, when it is very hot; by that means the veins in the diaphragm contract, and the blood grows thick. Towards the end of October and the beginning of November, the weather is apt to alter very suddenly, so that heat and cold change several times a day. When the people during this changeable weather are in the open air, they commonly get this disease. It is likewise certain that the air is more unwholesome one year than another, which depends upon the heat and other circumstances: this peculiar quality of the air must of course produce a pleurisy. It is remarkable, that both in the year 1728, and in the present, when so many people died at Penn's Neck, few died at Raccoon, though the two places are near each other, and seem to have the same soil and climate. But there is this difference, that Penn's Neck lies remarkably low, and Raccoon pretty high. The people in the former place have settled between marshes and swamps, in which the water stagnates and putrifies; and most of these places are covered with trees, by which means the wet is shut up still more, and near such marshes are the houses. Lastly, the water at Penn's Neck is not reckoned so good as that in Raccoon. It likewise becomes brackish in several little rivers, when the Delaware, during the tide, rises very high, and runs up into them. On the banks of these rivulets live many of the Swedes, and take water for common use from them.

December the 3d. This morning I set out for Philadelphia, where I arrived in the evening.

Wild grapes are very abundant in the woods, and of various kinds; a species of them, which are remarkable for their size, grow in the marshes, and are greedily eaten by the racoon: they are therefore called marsh grapes, but the English call them fox grape: they have not an agreeable flavour, and are seldom eaten by the inhabitants of this country, who make use of a small kind of wild grapes, which grow on a dry soil: pretty late in autumn, when they are quite ripe, they have a very good flavour, being a mixture of sweet and acid. Some people dry these grapes when gathered, and bake them in tarts, &c.: they likewise make use of them as dried sweetmeats. The Swedes formerly made a pretty good wine from them, but have now left it off. However, some of the English still press an agreeable liquor from these grapes, which they assured me was as good as the best claret, and that it would keep for several years.

The manner of preparing this sort of wine has been described at large in an almanack of this country, for the year 1743, and is as follows: the grapes are collected from the twenty-first of September to about the eleventh of November, that is as they grow ripe: they must be gathered in dry weather, and after the dew is gone off: the grapes are cleared of the cobwebs, dry leaves, and other things adhering to them. Next a great hoghead is prepared which has either had treacle or brandy in it; it is washed very clean, one of the bottoms beat out, and the other placed on a stand for the purpose, or on pieces of wood in the cellar, or else in a warm room, about two feet above the ground: the grapes are put into this hoghead, and as they sink lower in three or four days time, more are added. A man with naked feet

gets into the hoghead and treads the grapes, and in about half an hour's time the juice is forced out; the man then turns the lowest grapes uppermost, and treads them for about a quarter of an hour: this is sufficient to squeeze the good juice out of them, for an additional pressure would even crush the unripe grapes, and give the whole a disagreeable flavour. The hoghead is then covered with a thick blanket; but if there is no cellar, or it is very cold, two are spread over it. Under this covering the juice is left to ferment for the first time, and in the next four or five days it ferments and works very strongly. As soon as the fermentation ceases, a hole is made about six inches from the bottom, and some of the juice is tapped off about twice in a day. As soon as this is clear and settled, it is poured into an anker of a middling size; for from twenty bushels of grapes, they get about as many gallons of juice: the anker remains untouched; and the must in it ferments a second time: at this time it is necessary that the anker be quite full; the scum which settles at the bung-hole must be taken off, and the anker always filled up with more must, which is kept ready for that purpose; this is continued till Christmas, when the anker may be stopped up; at last the wine is ready in February and bottled. It is likewise usual here to put some of the ripe grapes into a vessel, in order to make a vinegar; and that which is got by this means is very good. Several people made brandy from these grapes, which has a very pleasant taste, but is still more pleasant if the fruits of the persimon are mixed with it. The wood of these vines is of no use, it is so brittle that it cannot be used for sticks: on cutting into the stem, a white, insipid resin comes out a few hours after the wound is made. In many gardens vines are planted for the purpose of making arbours, for which they are indeed excellent; as their large and plentiful leaves form a very close cover against the scorching heat of the sun. When the vines flower here in May and June, the flowers exhale a strong, but exceeding pleasant and refreshing smell, which is perceptible even at a great distance. Therefore on coming into the woods about that time, you may judge from the sweet perfume in the air, arising from the flowers of the vines, that you are near them, though you do not see them. Though the winters be ever so severe, yet they do not affect the vines. Each grape is about the size of a pea, but further southward they are said to be of the size of common raisins, and of a fine flavour. Further up in the country, during a part of autumn, they are the chief food of bears, who climb up the trees in order to pluck them. People are of opinion, that if the wild vines were cultivated with more care, the grapes would grow larger, and more palatable.

December the 5th. I shall here mention two prognostics of the weather, which were greatly valued here. Some people pretended to foretel that the ensuing winter would not be a severe one: this they conjectured from having seen wild geese and other migratory birds go to the south in October, but return a few days ago in great numbers, and even pass on further to the north. Indeed, the ensuing winter was one of the most temperate ones.

Several persons likewise assured us that we should have rain before to-morrow night. The reason they gave for this conjecture was, that this morning at sun-rising, from their windows they had seen every thing very plainly on the other side of the river, so that it appeared much nearer than usual, and that this commonly foreboded rain. This presage was likewise pretty exactly fulfilled.

The Indians, before the arrival of the Europeans, had no notion of the use of iron, though that metal was abundant in their country. However, they knew in some measure how to make use of copper. Some Dutchmen who lived here, still preserved

the old account among them, that their ancestors, on their first settling in New York, had met with many of the Indians, who had tobacco pipes of copper, and who made them understand by signs, that they got them in the neighbourhood: afterwards the fine copper mine was discovered, upon the second river between Elizabeth-town and New York. On digging in this mine, the people met with holes worked in the mountain, out of which some copper had been taken, and they found even some tools, which the Indians probably made use of, when they endeavoured to get the metal for their pipes. Such holes in the mountains have likewise been found in some parts of Pennsylvania, viz. below Newcastle towards the sea side, and always some marks of a copper ore along with them. Some people have conjectured, that the Spaniards, after discovering Mexico, sailed along the coasts of North America, and landed now and then, in order to enquire whether any gold or silver was to be met with, and that they perhaps made these holes in the mountains; but supposing them to have made such a voyage along the coasts, they could not immediately have found out the copper mines; and they probably did not stop to blast this ore, as they were bent only upon gold and silver; it is therefore almost undoubted that the Indians dug these holes: or may we be allowed to suspect that our old Normans, long before the discoveries of Columbus, came into these parts, and met with such veins of copper, when they sailed to what they called the excellent Wineland*, of which our ancient traditional records called Sagor speak, and which undoubtedly was North America? But in regard to this, I shall have occasion in the sequel better to explain my sentiments. It was remarkable, that in all those places where such holes have lately been found in the mountains, which manifestly seem to have been dug by men, they were always covered with a great quantity of earth, as if they were intended to remain hidden from strangers.

Dec. 6th. On long voyages the sailors sometimes catch such fish as are known to none of the ship's company; but as they are very greedy after fresh provisions, they seldom abstain from eating them; however it proves often venturing too much, experience having shown, that their want of caution has often cost them their lives, for sometimes poisonous fish are caught. But there is a method of finding them out, as I have heard from several captains of ships; it is usual when such unknown fish are boiled, to put a silver button, or any piece of silver, into the kettle, which, if the fish be poisonous, will turn quite black, but if it be not, it will not change: some of the seamen referred to their own repeated experience†.

Mr. Franklin and several other gentlemen frequently told me, that a powerful Indian, who possessed Rhode Island, had sold it to the English for a pair of spectacles: it is large enough for a prince's domain, and makes a peculiar government at present. This Indian knew to set a true value upon a pair of spectacles: for undoubtedly if those glasses were not so plentiful, and only a few of them could be found, they would, on account of their great use, bear the same price with diamonds.

The servants which are made use of in the English American colonies are either free persons, or slaves, and the former are again of two different sorts.

* See for this opinion the scarce and curious work intituled, "*Torfæi historia Vinlandiæ antiquæ seu partis Americæ septentrionalis.*" Hafniæ, 1715, 4to. F.

† This experiment with the silver supposes, that the broth of the fish would be so strong as to act as a solvent upon the silver; but there may be poisons, which would not affect the silver, and however prove fatal to men; the surest way therefore would be to suppress that appetite, which may become fatal not only to a few men of the crew, but also endanger the whole ship, by the loss of necessary hands. F.

First, Those who are quite free serve by the year; they are not only allowed to leave their service at the expiration of their year, but may leave it at any time when they do not agree with their masters. However, in that case they are in danger of losing their wages, which are very considerable. A man-servant who has some abilities, gets between sixteen and twenty pounds in Pennsylvania currency, but those in the country do not get so much. A servant-maid gets eight or ten pounds a year: these servants have their food besides their wages, but must buy their own clothes, and what they get of these, they must thank their master's goodness for.

Second, The second kind of free servants consist of such persons as annually come from Germany, England, and other countries, in order to settle here. These new comers are very numerous every year: there are old and young ones, and of both sexes; some of them have fled from oppression, under which they supposed themselves to have laboured. Others have been driven from their country by persecution on account of religion; but most of them are poor, and have not money enough to pay their passage, which is between six and eight pounds sterling for each person; therefore they agree with the captain that they will suffer themselves to be sold for a few years, on their arrival. In that case the person who buys them, pays the freight for them; but frequently very old people come over, who cannot pay their passage, they therefore sell their children, so that they serve both for themselves and for their parents: there are likewise some who pay part of their passage, and they are sold only for a short time. From these circumstances it appears, that the price of the poor foreigners who come over to North America is not equal, and that some of them serve longer than others: when their time is expired, they get a new suit of clothes from their master, and some other things: he is likewise obliged to feed and clothe them during the years of their servitude. Many of the Germans who come hither, bring money enough with them to pay their passage, but rather suffer themselves to be sold, with a view, that during their servitude they may get some knowledge of the language and quality of the country, and the like, that they may the better be able to consider what they shall do when they have got their liberty. Such servants are taken preferable to all others, because they are not so dear; for to buy a negroe or black slave requires too much money at once; and men or maids who get yearly wages, are likewise too dear; but this kind of servants may be got for half the money, and even for less; for they commonly pay fourteen pounds, Pennsylvania currency, for a person who is to serve four years, and so on in proportion. Their wages therefore are not above three pounds Pennsylvania currency per annum. This kind of servants, the English call *servings*. When a person has bought such a servant for a certain number of years, and has an intention to sell him again, he is at liberty to do so; but he is obliged, at the expiration of the term of the servitude, to provide the usual suit of cloaths for the servant, unless he has made that part of the bargain with the purchaser. The English and Irish commonly sell themselves for four years, but the Germans frequently agree with the captain before they set out, to pay him a certain sum of money, for a certain number of persons; as soon as they arrive in America, they go about and try to get a man who will pay the passage for them: in return they give according to the circumstances, one or several of their children, to serve a certain number of years: at last they make their bargain with the highest bidder.

Third, The negroes or blacks make the third kind. They are in a manner slaves; for when a negro is once bought, he is the purchaser's servant as long as he lives, unless he gives him to another, or makes him free. However, it is not in the power of the master to kill his negro for a fault, but he must leave it to the magistrates to proceed

ceed according to the laws. Formerly the negroes were brought over from Africa, and bought by almost every one who could afford it. The quakers alone scrupled to have slaves; but they are no longer so nice, and they have as many negroes as other people. However, many people cannot conquer the idea of its being contrary to the laws of Christianity to keep slaves. There are likewise several free negroes in town, who have been lucky enough to get a very zealous quaker for their master, who gave them their liberty, after they had faithfully served him for some time.

At present they seldom bring over any negroes to the English colonies, for those which were formerly brought thither, have multiplied considerably. In regard to their marriage, they proceed as follows: In case you have not only male but likewise female negroes, they must intermarry, and then the children are all your slaves; but if you possess a male negro only, and he has an inclination to marry a female belonging to a different master, you do not hinder your negro in so delicate a point; but it is no advantage to you, for the children belong to the master of the female; it is therefore advantageous to have negro-women. A man who kills his negro must suffer death for it: there is not however an example here of a white man's having been executed on this account. A few years ago it happened that a master killed his slave; his friends and even the magistrates secretly advised him to leave the country, as otherwise they could not avoid taking him prisoner, and then he would be condemned to die according to the laws of the country, without any hopes of saving him. This lenity was employed towards him, that the negroes might not have the satisfaction of seeing a master executed for killing his slave; for this would lead them to all sorts of dangerous designs against their masters, and to value themselves too much.

The negroes were formerly brought from Africa, as I mentioned before; but now this seldom happens, for they are bought in the West Indies, or American Islands, whither they were originally brought from their own country: for it has been found that on transporting the negroes from Africa, immediately into these northern countries, they have not such a good state of health, as when they gradually change places, and are first carried from Africa to the West Indies, and from thence to North America. It has frequently been found, that the negroes cannot stand the cold here so well as the Europeans or whites; for whilst the latter are not in the least affected by the cold, the toes and fingers of the former are frequently frozen. There is likewise a material difference among them in this point; for those who come immediately from Africa, cannot bear the cold so well as those who are either born in this country, or have been here for a considerable time; for the frost easily hurts the hands or feet of the negroes which come from Africa, or occasions violent pains in their whole body, or in some parts of it, though it does not at all affect those who have been here for some time. There are frequent examples that the negroes on their passage from Africa, if it happens in winter, have some of their limbs destroyed by frost, on board the ship, when the cold is but very inconsiderable, and the sailors are scarce obliged to cover their hands. I was even assured, that some negroes have been seen here, who have had an excessive pain in their legs, which afterwards broke in the middle, and dropped entirely from the body, together with the flesh on them. Thus it is the same case with men here, as with plants which are brought from the southern countries, and cannot accustom themselves to a colder climate.

The price of negroes differs according to their age, health, and abilities. A full-grown negro costs from forty pounds and upwards to a hundred, of Pennsylvania currency. A negro boy or girl, of two or three years old, can hardly be got for less than eight.

eight or fourteen pounds in Pennsylvania currency. Not only the quakers, but likewise several christians of other denominations, sometimes set their negroes at liberty. This is done in the following manner: When a gentleman has a faithful negro, who has done him great services, he sometimes declares him independent at his death. This is however very expensive; for they are obliged to make a provision for the negro thus set at liberty, to afford him subsistence when he is grown old, that he may not be driven by necessity to wicked actions, or that he may be at any body's charge, for these free negroes become very lazy and indolent afterwards. But the children which the free negro has begot during his servitude, are all slaves, though their father be free. On the other hand, those negro children are free whose parents are at liberty. The negroes in the North American colonies are treated more mildly, and fed better than those in the West Indies. They have as good food as the rest of the servants, and they possess equal advantages in all things, except their being obliged to serve their whole life-time, and get no other wages than what their master's goodness allows them: they are likewise clad at their master's expence. On the contrary, in the West Indies, and especially in the Spanish islands, they are treated very cruelly; therefore no threats make more impression upon a negro here, than that of sending him over to the West Indies, in case he would not reform. It has likewise been frequently found by experience, that when you show too much remissness to these negroes, they grow so obstinate, that they will no longer do any thing but of their own accord: therefore a strict discipline is very necessary, if their master expects to be satisfied with their services.

In the year 1620, some negroes were brought to North America in a Dutch ship, and in Virginia they bought twenty of them. These are said to have been the first that came hither. When the Indians, who were then more numerous in the country than at present, saw these black people for the first time, they thought they were a true breed of devils, and therefore they called them Manitto for a great while: this word in their language signifies not only God, but likewise the devil. Some time before that, when they saw the first European ship on their coasts, they were perfectly persuaded that God himself was in the ship. This account I got from some Indians, who preserved it among them as a tradition which they had received from their ancestors: therefore the arrival of the negroes seemed to them to have confused every thing; but since that time, they have entertained less disagreeable notions of the negroes, for at present many live among them, and they even sometimes intermarry, as I myself have seen.

The negroes have therefore been upwards of a hundred and thirty years in this country: but the winters here, especially in New England and New York, are as severe as our Swedish winters. I therefore very carefully enquired, whether the cold had not been observed to affect the colour of the negroes, and to change it, so that the third or fourth generation from the first that came hither, were not so black as their ancestors. But I was generally answered, that there was not the least difference of colour to be perceived; and that a negro born here, of parents which were likewise born in this country, and whose ancestors both men and women had all been blacks born in this country, up to the third or fourth generation, was not at all different in colour from those negroes who are brought directly over from Africa. From hence many people conclude, that a negro or his posterity do not change colour, though they continue ever so long in a cold climate; but the mixing of a white man with a negro woman, or of a negro with a white woman, has a different effect; therefore to prevent any disagreeable mixtures of the white people and negroes, and that the negroes may not form too great an opinion of themselves, to the disadvantage of their masters, I am told there is
a law

a law made, prohibiting the whites of both sexes to marry negroes, under pain of death, and deprivation of the clergyman who marries them; but that the whites and blacks sometimes mix, appears from children of a mixed complexion, which are sometimes born.

It is likewise greatly to be pitied, that the masters of these negroes in most of the English colonies take little care of their spiritual welfare, and let them live on in their Pagan darkness. There are even some, who would be very ill pleased at, and would by all means hinder their negroes from being instructed in the doctrines of Christianity; to this they are partly led by the conceit of its being shameful, to have a spiritual brother or sister among so despicable a people; partly by thinking that they should not be able to keep their negroes so meanly afterwards; and partly through fear of the negroes growing too proud, on seeing themselves upon a level with their masters in religious matters.

Several writings are well known, which mention, that the negroes in South America have a kind of poison with which they kill each other, though the effect is not sudden, but happens a long time after the person has taken it: the same dangerous art of poisoning is known by the negroes of North America, as has frequently been experienced. However only a few of them know the secret, and they likewise know the remedy against it, therefore when a negro feels himself poisoned, and can recollect the enemy who might possibly have given him the poison, he goes to him, and endeavours by money and entreaties to move him to deliver him from the poison; but if the negro is malicious, he does not only deny that he ever poisoned him, but likewise that he knows a remedy against it: this poison does not kill immediately, for sometimes the sick person dies some years after. But from the moment he has the poison, he falls into a consumption, and enjoys few days of good health: such a poor wretch often knows that he is poisoned, the moment he gets the poison. The negroes commonly employ it on such of their brethren as behave well, are beloved by their masters, and separate as it were from their countrymen, or do not like to converse with them. They have likewise often other reasons for their enmity; but there are few examples of their having poisoned their masters. Perhaps the mild treatment they receive, keeps them from doing it, or perhaps they fear that they may be discovered, and that, in such a case, the severest punishments would be inflicted on them.

They never discover what the poison consists of, and keep it secret beyond conception. It is probable that it is a very common thing, which may be got all the world over, for wherever they are they can always easily procure it. Therefore it cannot be a plant, as several learned men have thought; for that is not to be met with every where. I have heard many accounts here of negroes who have been killed by this poison. I shall only mention one incident, which happened during my stay in this country. A man here had a negro who was exceedingly faithful to him, and behaved so well, that he would not have given him for twenty other negroes. His master likewise shewed him a peculiar kindness, and the slave's conduct equalled that of the best Christian servant; he likewise conversed as little as possible with the other negroes; on that account they hated him to excess; but as he was scarce ever in company with them, they had no opportunity of conveying the poison to him, which they had often tried. However, on coming to town during the fair (for he lived in the country), some other negroes invited him to drink with them. At first he would not, but they pressed him till he was obliged to comply. As soon as he came into the room, the others took a pot from the wall and pledged him, desiring him to drink likewise: he drank,

drank, but when he took the pot from his mouth, he said, what beer is this? It is full of *****. I purposely omit what he mentioned, for it seems undoubtedly to have been the name of the poison with which malicious negroes do so much harm, and which is to be met with almost every where. It might be too much employed to wicked purposes, and it is therefore better that it remains unknown. The other negroes and negro-women fell a laughing at the complaints of their hated countryman, and danced and sung as if they had done an excellent action, and had at last obtained the point so much wished-for. The innocent negro went away immediately, and, when he got home, said, that the other negroes had certainly poisoned him: he then fell into a consumption, and no remedy could prevent his death.

Dec. 7th. In the morning I undertook again a little journey to Raccoon, in New Jersey.

It does not seem difficult to find out the reasons why the people multiply more here than in Europe. As soon as a person is old enough, he may marry in these provinces, without any fear of poverty; for there is such a tract of good ground yet uncultivated, that a new-married man can, without difficulty, get a spot of ground, where he may sufficiently subsist with his wife and children. The taxes are very low, and he need not be under any concern on their account. The liberties he enjoys are so great, that he considers himself as a prince in his possessions. I shall here demonstrate, by some plain examples, what effect such a constitution is capable of.

Maons Keen, one of the Swedes in Raccoon, was now near seventy years old: he had many children, grandchildren, and great-grand-children; so that, of those who were yet alive, he could muster up forty-five persons. Besides them, several of his children and grand-children died young, and some in a mature age. He was, therefore uncommonly blessed. Yet his happiness is not comparable to that which is to be seen in the following examples, and which I have extracted from the Philadelphia gazette.

In the year 1732, died at Ipswich, in New England, Mrs. Sarah Tuthil, a widow, aged eighty-six years. She had brought sixteen children into the world; and from seven of them only, she had seen one hundred and seventy-seven grand-children and great-grand-children.

In 1739, May 30th, the children, grand, and great-grand-children, of Mr. Richard Buttington, in the parish of Chester, in Pennsylvania, were assembled in his house; and they made together one hundred and fifteen persons. The parent of these children, Richard Buttington, who was born in England, was then entering into his eighty-fifth year; and was at that time quite fresh, active, and sensible. His eldest son, then sixty years old, was the first Englishman born in Pennsylvania.

In 1742, 8th of Jan., died at Trenton, in New Jersey, Mrs. Sarah-Furman, a widow, aged ninety-seven years. She was born in New England, and left five children, sixty-one grand-children, one hundred and eighty-two great-grand-children, and twelve great-great-grand-children, who were all alive when she died.

In 1739, 28th of Jan., died at South Kingston, in New England, Mrs. Maria Hazard, a widow, in the hundredth year of her age. She was born in Rhode Island, and was a grandmother of the then vice-governor of that island, Mr. George Hazard. She could count altogether five hundred children, grand-children, great-grand-children, and great-great-grand-children. When she died, two hundred and five persons of them were alive; a grand-daughter of hers had already been grandmother near fifteen years.

In

In this manner, the usual wish of blessing in our liturgy, that the new-married couple may see their grand children, till the third and fourth generation, has been literally fulfilled in regard to some of these persons*.

Dec. 9th. In every country we commonly meet with a number of insects; of which many, though they be ever so small and contemptible, can do considerable damage to the inhabitants. Of these dangerous insects there are likewise some in North America: some are peculiar to that country, others are common to Europe likewise.

I have already mentioned the mosquitoes as a kind of disagreeable gnats; and another noxious insect, the bruchus pisi, which destroys whole fields with pease. I shall here add some more.

There are a kind of locusts, which about every seventeenth year, come hither in incredible numbers. They come out of the ground in the middle of May, and make, for six weeks together, such a noise in the trees and woods, that two persons who meet in such places, cannot understand each other, unless they speak louder than the locusts can chirp. During that time, they make with the sting in their tail, holes into the soft bark of the little branches on the trees, by which means these branches are ruined. They do no other harm to the trees or other plants. In the interval, between the years when they are so numerous, they are only seen or heard single in the woods.

There is likewise a kind of caterpillars in these provinces, which eat the leaves from the trees. They are also innumerable in some years. In the intervals there are but few of them: but when they come, they strip the tree so entirely of their leaves, that the woods in the middle of summer are as naked as in winter. They eat all kinds of leaves, and very few trees are left untouched by them: as, about that time of the year, the heat is most excessive, the stripping the trees of their leaves has this fatal consequence, that they cannot withstand the heat, but dry up entirely. In this manner, great forests are sometimes entirely ruined. The Swedes, who live here, shewed me, here and there, great tracts in the woods, where young trees were now growing, instead of the old ones, which some years ago had been destroyed by the caterpillars. These caterpillars afterwards change into moths, or phalænæ, which shall be described in the sequel, in their proper places.

In other years the grass-worms do a great deal of damage in several places, both in the meadows and corn-fields. For the fields are at certain times over-run with great armies of these worms, as with the other insects; yet it is very happy that these many plagues do not come all together. For in those years, when the locusts are numerous, the caterpillars and grass-worms are not very considerable, and it happens so with the latter kinds, so that only one of the three kinds comes at a time. Then there are several years when they are very scarce. The grass-worms have been observed to settle chiefly in a fat soil; but as soon as careful husbandmen discover them, they draw narrow channels with almost perpendicular sides quite round the field in which the worms are settled; then, by creeping further, they all fall into the ditch, and cannot get out again. I was assured, by many persons, that these three sorts of insects followed each other pretty closely; and that the locusts came in the first year, the caterpillars in the second, and the grass-worms in the last: I have likewise found, by my own experience, that this is partly true.

Moths, or tineæ, which eat the clothes, are likewise abundant here. I have seen cloth, worsted gloves, and other woollen stuffs, which had hung all the summer locked

* Mr. Kalm speaks here of the Swedish liturgy.

up in a shrine, and had not been taken care of, quite cut through by these worms, so that whole pieces fell out. Furs, which had been kept in the garret, were frequently so ruined by worms, that the hair went off by handfuls. I am, however, not certain whether these worms were originally in the country, or whether they were brought over from Europe.

Fleas are likewise to be found in this part of the world. Many thousands were undoubtedly brought over from other countries; yet immense numbers of them have certainly been here since time immemorial. I have seen them on the grey squirrels, and on the hares which have been killed in such desert parts of this country, where no human creature ever lived. As I afterwards came further up into the country, and was obliged to lie at night in the huts and beds of the Indians, I was so plagued by immense quantities of fleas that I imagined I was put to the torture. They drove me from the bed, and I was very glad to sleep on the benches below the roof of the huts. But it is easy to conceive that the many dogs which the Indians keep, breed fleas without end. Dogs and men lie promiscuously in the huts; and a stranger can hardly lie down and shut his eyes, but he is in danger of being either squeezed to death, or stifled by a dozen or more dogs, which lie round him and upon him, in order to have a good resting place. For I imagine they do not expect that strangers will venture to beat them, or throw them off as their masters and mistresses commonly do.

The noisy crickets (*gryllus domesticus*) which are sometimes to be met with in the houses in Sweden, I have not perceived in any part of Pennsylvania or New Jersey; and other people whom I have asked, could not say that they had ever seen any. In summer there are a kind of black crickets * in the fields, which make exactly the same chirping noise as our house crickets. But they keep only to the fields, and were silent as soon as winter or the cold weather came on. They say it sometimes happens that these field crickets take refuge in houses, and chirp continually there, whilst it is warm weather, or whilst the rooms are warm; but as soon as it grows cold they are silent. In some parts of the province of New York, and in Canada, every farm-house, and most of the houses in the towns, swarm with so many, that no farm-house in our country can be better stocked with them. They continue their music there throughout the whole winter.

Bugs (*cimex lectularius*) are very plentiful here. I have been sufficiently tormented by them in many places in Canada; but I do not remember having seen any with the Indians, during my stay at Fort Frederick. The commander there, Mr. de Louignan, told me, that none of the Illinois and other Indians of the western parts of North America knew any thing of these vermin; and he added, that he could with certainty say this from his own experience, having been among them for a great while. Yet I cannot determine whether bugs were first brought over by the Europeans, or whether they have originally been in the country. Many people looked upon them as natives of this country, and as a proof of it said, that under the wings of bats the people had often found bugs, which had eaten very deep into the flesh. It was therefore believed that the bats had got them in some hollow tree, and had afterwards brought them into the houses, as they commonly fix themselves close to the walls, and creep into the little chinks which they meet with; but as I have never seen any bugs upon bats, I cannot say any thing upon that subject. Perhaps a louse or a tick (*acarus*) has been taken

* Perhaps it is the *gryllus campestris*, or common black field cricket of Europe, of which Roefel, in his work on insects, vol. 2, Gryll. f. 13, has giving a fine drawing. F.

for a bug; or, if a real bug has been found upon a bat's wing, it is very easy to conceive that it fixed on the bat, whilst the latter was sitting in the chinks of a house stocked with European bugs.

As the people here could not bear the inconvenience of these vermin, any more than we can in Sweden, they endeavoured to expel them by different means. I have already remarked, that the beds to that purpose were made of saffra wood, but that they were only temporary remedies. Some persons assured me that they had found, from their own experience, and by repeated trials, that no remedy was more effectual towards the expulsion of bugs than the injecting of boiling water into all the cracks where they are settled, and washing all the wood of the beds with it; this being twice or thrice repeated, the bugs are wholly destroyed. But if there are bugs in neighbouring houses, they will fasten to one's clothes, and thus be brought over into other houses.

I cannot say whether these remedies are good or no, as I have not tried them; but by repeated trials I have been convinced that sulphur, if it be properly employed, entirely destroys bugs and their eggs in beds and walls, though they were ten times more numerous than the ants in an ant-hill*.

The mill-beetles, or cock-roaches, are likewise a plague of North America, and are settled in many of its provinces. The learned Dr. Colden was of opinion that these insects were properly natives of the West Indies, and that those that were found in North America were brought over from those islands. To confirm his opinion, he said, that it was yet daily seen how the ships coming with goods from the West Indies to North America, brought mill-beetles with them in great numbers. But from the observations which I have made in this country, I have reason to believe that these insects have been on the continent of North America time immemorial. Yet notwithstanding this I do not deny their being brought over from the West Indies. They are in almost every house in the city of New York; and those undoubtedly came over in ships. But how can that be said of those mill-beetles which are found in the midst of the woods and deserts?

The English likewise call the mill-beetles cock-roaches, and the Dutch give them the name of cackerlack. The Swedes in this country call them brodoetare, or bread-eaters, on account of the damage they do to the bread, which I am going to describe. Dr. Linnæus calls them *blatta orientalis*. Many of the Swedes call them likewise kackerlack. They are not only observed in the houses, but in the summer they appear often in the woods, and run about the trees which are cut down. On bringing in all sorts of old rotten blocks of wood for fuel, in February, I discovered several cock-roaches settled in them; they were at first quite torpid, or as it were dead; but after lying in the room for a while, they recovered, became very lively, and began to run about. I afterwards found very often, that when old rotten wood was brought home in winter, and cut in pieces for fuel, the cock-roaches were got into it in numbers, and lay in it in a torpid state. In the same winter, a fellow cut down a great dry tree, and was about to split it. I then observed in a crack, some fathoms above the ground, several cock-roaches together with the common ants. They were, it seems, crept up a great way, in order to find a secure place of abode against winter. On travelling, in the middle of October 1749, through the uninhabited country between the English and French colonies, and making a fire at night near a thick half-rotten tree, on the

* A still more infallible remedy is to wash all the furniture infected with that vermin, with a solution of arsenic. F.

shore of Lake Champlain, numbers of cock-roaches came out of the wood, being wakened by the smoke and the fire, which had driven them out of their holes. The Frenchmen, who were then in my company, did not know them, and could not give them any name. In Canada the French did not remember seeing any in the houses. In Pennsylvania, I am told, they run in immense numbers about the sheaves of corn, during the harvest. At other times they live commonly in the houses in the English settlements, and lie in the crevices, especially in the cracks of those beams which support the ceiling, and are nearest to the chimney.

They do a deal of damage by eating the soft parts of the bread. If they have once made a hole into a loaf, they will in a little time eat all the soft part in it, so that on cutting the loaf, nothing but the crust is left. I am told they likewise eat other victuals. Sometimes they bite people's noses or feet, whilst they are asleep. An old Swede, called Suen Laock, a grandson of the Rev. Mr. Laockenius, one of the first Swedish clergymen that came to Pennsylvania, told me, that he had in his younger years been once very much frightened on account of a cock-roach, which crept into his ear whilst he was asleep. He waked suddenly, jumped out of bed, and felt that the insect, probably out of fear, was endeavouring with all its strength to get deeper. These attempts of the cock-roach were so painful to him, that he imagined his head was bursting, and he was almost senseless; however he hastened to the well, and bringing up a bucket full of water, threw some into his ear. As soon as the cock-roach found itself in danger of being drowned, it endeavoured to save itself, and pushed backwards out of the ear, with its hind feet, and thus happily delivered the poor man from his fears.

The wood-lice are disagreeable insects, which in a manner are worse than the preceding; but as I have already described them in a peculiar memoir, which is printed among the memoirs of the Royal Academy of Sciences for the year 1754, I refer my readers to that account.

Dec. 11th. This morning I made a little excursion to Penn's Neck, and further over the Delaware to Wilmington. The country round Penn's Neck has the same qualities as that about other places in this part of New Jersey. For the ground consists chiefly of sand, with a thin stratum of black soil. It is not very hilly, but chiefly flat, and in most places covered with open woods of such trees as have annual leaves, especially oak. Now and then you see a single farm, and a little corn-field round it. Between them are here and there little marshes or swamps, and sometimes a brook with water, which has a very slow motion.

The woods of these parts consist of all sorts of trees, but chiefly of oak and hickory. These woods have certainly never been cut down, and have always grown without hindrance. It might therefore be expected that there are trees of an uncommon great age to be found in them; but it happens otherwise, and there are very few trees three hundred years old. Most of them are only two hundred years old; and this convinced me that trees have the same quality as animals, and die after they are arrived at a certain age. Thus we find great woods here, but when the trees in them have stood an hundred and fifty or an hundred and eighty years, they are either rotting within, or losing their crown, or their wood becomes quite soft, or their roots are no longer able to draw in sufficient nourishment, or they die from some other cause. Therefore when storms blow, which sometimes happens here, the trees are broke off either just above the root, or in the middle, or at the summit. Several trees are likewise torn out with their roots by the power of the winds. The storms thus cause great devastations in these forests. Everywhere you see trees thrown down by the winds, after they are too

much weakened by one or the other of the above-mentioned causes to be able to resist their fury. Fire likewise breaks out often in the woods, and burns the trees half way from the root, so that a violent gust of wind easily throws them down.

On travelling through these woods, I purposely tried to find out, by the position of the trees which were fallen down, which winds are the strongest hereabouts. But I could not conclude any thing with certainty, for the trees fell on all sides, and lay towards all the points of the compass. I therefore judged, that any wind which blows from that side where the roots of the tree are weakest and shortest, and where it can make the least resistance, must root it up and throw it down. In this manner the old trees die away continually, and are succeeded by a young generation. Those which are thrown down lie on the ground and putrify, sooner or later, and by that means increase the black soil, into which the leaves are likewise finally changed, which drop abundantly in autumn, are blown about by the winds for some time, but are heaped up, and lie on both sides of the trees, which are fallen down. It requires several years before a tree is entirely reduced to dust. When the winds tear up a tree with the roots, a quantity of loose soil commonly comes out with, and sticks to them for some time, but at last it drops off, and forms a little hillock, which is afterwards augmented by the leaves, which commonly gather about the roots. Thus several inequalities are formed in the woods, such as little holes and hills; and by this means the upper soil must likewise be heaped up in such places.

Some trees are more inclined to putrify than others. The tupelo-tree (*nyssa*), the tulip-tree (*liriodendron*), and the sweet gum-tree (*liquidambar*), became rotten in a short time. The hickory did not take much time, and the black oak fell sooner to pieces than the white oak; but this was owing to circumstances. If the bark remained on the wood, it was for the greatest part rotten, and entirely eaten by worms within, in the space of six, eight, or ten years, so that nothing was to be found but a reddish brown dust. But if the bark was taken off, they would often lie twenty years before they were entirely rotten. The suddenness of a tree's growth, the bigness of its pores, and the frequent changes of heat and wet in summer, cause it to rot sooner. To this it must be added, that all sorts of insects make holes into the stems of the fallen trees, and by that means the moisture and the air get into the tree, which must of course forward putrefaction. Most of the trees here have deciduous or annual leaves. Many of them begin to rot whilst they are yet standing and blooming. This forms the hollow trees, in which many animals make their nests and places of refuge.

The breadth of the Delaware directly opposite Wilmington, is reckoned an English mile and a half; yet to look at it, it did not seem to be so great. The depth of the river, in the middle, is said to be from four to six fathoms here.

Dec. 12th. The joiners say, that among the trees of this country they chiefly use the black walnut-trees, the wild cherry-trees, and the curled maple. Of the black walnut-trees (*juglans nigra*) there is yet a sufficient quantity. However careless people take pains enough to destroy them, and some peasants even use them as fuel. The wood of the wild cherry-trees (*prunus Virginiana*) is very good, and looks exceedingly well; it has a yellow colour, and the older the furniture is, which is made of it, the better it looks. But it is already difficult to get at it, for they cut it everywhere, and plant it nowhere. The curled maple (*acer rubrum*) is a species of the common red maple, but likewise very difficult to be got. You may cut down many trees without finding the wood which you want. The wood of the sweet gum-tree (*liquidambar*) is merely employed in joiner's work, such as tables and other furniture. But it must not be

be brought near the fire, because it warps. The firs and the white cedars (*cupressus thyoides*) are likewise made use of by the joiners for different sorts of work.

The millers who attended the mill which stood here, said, that the axletrees of the wheels of the mill were made of white oak, and that they continued good three or four years, but that the fir-wood does not keep so well. The cogs of the mill-wheel and the pullies are made of the wood of the white walnut-tree, because it is the hardest which can be got here. The wood of mulberry-trees is of all others reckoned the most excellent for pegs and plugs in ships and boats.

At night I went over the river Delaware, from Wilmington to the ferrying-place, on the New Jersey side.

Dec. 13th. In the morning I returned to Raccoon.

On many trees in the woods of this country, either on one of the sides, or in the middle of a branch, or round a branch, are greater or lesser knobs or excrescences. Sometimes there is only a single one in a tree. In the size there is a considerable difference, for some of these knobs are as big and bigger than a man's head, others are only small. They project above the surface of the tree, like a tumor. Sometimes a tree was quite covered with them. They do not lie on one side only, but often form a circle round a branch, and even round the stem itself. The trees which have these knobs are not always great ones, but some not above a fathom high. The knobs commonly consist of the same parts as the wood itself, and look within like curled wood. Some of them are hollow. When a knob on a little tree is cut open, we commonly find a number of little worms in it, which are sometimes also common in the greater knobs. This shews the origin of the knobs in general. The tree is stung by insects, which lay their eggs under the bark, and from the eggs worms are afterwards hatched. They occasion an extravasation of the sap, which gradually condenses into a knob. Only the trees with annual deciduous leaves have these knobs, and among them chiefly the oak, of which again the black and Spanish oak have the greatest abundance of knobs. The ash trees, (*fraxinus excelsior*) and the red maple (*acer rubrum*) likewise have enough of them. Formerly the Swedes, and more especially the Finlanders, who are settled here, made dishes, bowls, &c. of the knobs which were on the ash-trees. These vessels, I am told, were very pretty, and looked as if they were made of curled wood. The oak-knobs cannot be employed in this manner as they are commonly worm-eaten and rotten within. At present the Swedes no longer make use of such bowls and dishes, but make use of earthenware, or vessels made of other wood. Some knobs are of an uncommon size, and make a tree have a monstrous appearance. Trees with knobs are very common in the woods of this country*.

The roads are good or bad according to the difference of the ground. In a sandy soil the roads are dry and good; but in a clayey one they are bad. The people here are likewise very careless in mending them. If a rivulet be not very great, they do not make a bridge over it; and travellers may do as well as they can to get over: Therefore many people are in danger of being drowned in such places, where the water is

* In Siberia, and in the province of Wiatka, in the government of Cazan, in Russia, the inhabitants make use of the knobs, which are pretty frequently found in birches, to make bowls and other domestic utensils thereof. They are turned, made pretty thin, and covered with a kind of varnish, which gives them a pretty appearance; for the utensil looks yellow, and is marbled quite in a picturesque manner, with brown veins. The best kind of these vessels are made so thin that they are semidiaphanous, and when put into hot water they grow quite pliant, and may be formed by main force, quite flat, but when again left to themselves, and grown cold, they return to their original shape. This kind of wood is called, in Russia, *kap*, and the vessels made of it, *kappowie tchashkt*, and are pretty high in price, when they are of the best kind, and well varnished. F.

rifen by a heavy rain. When a tree falls across the road, it is seldom cut off, to keep the road clear, but the people go round it. This they can easily do, since the ground is very even, and without stones; has no underwood or shrubs, and the trees on it stand much asunder. Hence the roads here have so many bendings.

The farms are most of them single, and you seldom meet with even two together, except in towns, or places which are intended for towns; therefore there are but few villages. Each farm has its corn-fields, its woods, its pastures and meadows. This may perhaps have contributed something towards the extirpation of wolves, that they everywhere met with houses, and people who fired at them. Two or three farm-houses have generally a pasture or a wood in common, and there are seldom more together; but most of them have their own grounds divided from the others.

Dec. 18th. All persons who intend to be married, must either have their banns published three times from the pulpit, or get a licence from the governor. The banns of the poorer sort of people only are published, and all those who are a little above them get a licence from the governor. In that licence he declares that he has examined the affair, and found no obstacles to hinder the marriage, and therefore he allows it. The licence is signed by the governor; but, before he delivers it, the bridegroom must come to him in company with two creditable and well-known men, who answer for him, that there really is no lawful obstacle to his marriage. These men must subscribe a certificate, in which they make themselves answerable for, and engage to bear all the damages of, any complaints made by the relations of the persons who intend to be married, by their guardians, their masters, or by those to whom they may have been promised before. For all these circumstances the governor cannot possibly know. They further certify that nothing hinders the intended marriage, and that nothing is to be feared on that account. For a licence they pay five and twenty shillings in Penſylvanian money, at Philadelphia. The governor keeps twenty shillings, or one pound, and the remaining five shillings belong to his secretary. The licence is directed only to protestant clergymen. The quakers have a peculiar licence to their marriages. But as it would be very troublesome, especially for those who live far from the governor's residence, to come up to town for every licence, and to bring the men with them who are to answer for them, the clergymen in the country commonly take a sufficient number of licences and certificates, which are ready printed, with blanks left for the names; they give them occasionally, and get the common money, one pound five shillings, for each of them, besides something for their trouble. The money that they have collected, they deliver to the governor as soon as they come to town, together with the certificates, which are signed by two men, as above-mentioned; they then take again as many licences as they think sufficient: from hence we may conceive that the governors in the English North American colonies, besides their salaries, have very considerable revenues*.

There is a great mixture of people of all sorts in these colonies, partly of such as are lately come over from Europe, and partly of such as have not yet any settled place of abode. Hence it frequently happens that when a clergyman has married such a couple, the bridegroom says he has no money at present, but would pay the fee at the first opportunity: however he goes off with his wife, and the clergyman never gets his due.

* Though it is very desirable that the members of the church of England may enjoy the same religious liberty in America as the rest of their fellow-subjects, and have every part of their religious establishment among themselves, and that therefore bishops might be introduced in America, it is however to be feared this will prove one of the obstacles to the introducing of English bishops in that part of the world.

This proceeding has given occasion to a custom which is now common in Maryland. When the clergyman marries a very poor couple, he breaks off in the middle of the liturgy, and cries out, Where is my fee? The man must then give the money, and the clergyman proceeds; but if the bridegroom has no money, the clergyman defers the marriage till another time, when the man is better provided. People of fortune, of whom the clergyman is sure to get his due, need not fear this disagreeable question, when they are married.

However, though the parson has got licences to marry a couple, yet if he be not very careful, he may get into very disagreeable circumstances; for in many parts of the country there is a law made, which, notwithstanding the governor's licence, greatly limits a clergyman in some cases. He is not allowed to marry a couple who are not yet of age, unless he be certain of the consent of their parents. He cannot marry such strangers as have bound themselves to serve a certain number of years, in order to pay off their passage from Europe, without the consent of their masters; if he acts without their consent, or in opposition to it, he must pay a penalty of fifty pounds, Pennsylvania currency, though he has the licence, and the certificate of the two men who are to answer for any objection. But parents or masters give themselves no concern about these men, but take hold of the clergyman, who is at liberty to prosecute those who gave him the certificate, and to get his damages repaid. With the consent of the parents and masters, he may marry people without danger to himself. No clergyman is allowed to marry a negro with one of European extraction, or he must pay a penalty of one hundred pounds, according to the laws of Pennsylvania.

There is a very peculiar diverting custom here, in regard to marrying. When a man dies, and leaves his widow in great poverty, or so that she cannot pay all the debts with what little she has left; and that, notwithstanding all that, there is a person who will marry her, she must be married in no other habit than her shift. By that means, she leaves to the creditors of her deceased husband her cloaths, and every thing which they find in the house. But she is not obliged to pay them any thing more, because she has left them all she was worth, even her cloaths, keeping only a shift to cover her, which the laws of the country cannot refuse her. As soon as she is married, and no longer belongs to the deceased husband, she puts on the cloaths which the second has given her. The Swedish clergymen here have often been obliged to marry a woman in a dress which is so little expensive, and so light. This appears from the registers kept in the churches, and from the accounts given by the clergymen themselves. I have likewise often seen accounts of such marriages in the English gazettes, which are printed in these colonies; and I particularly remember the following relation: A woman went, with no other dress than her shift, out of the house of her deceased husband to that of her bridegroom, who met her half way with fine new cloaths, and said, before all who were present, that he lent them his bride; and put them on her with his own hands. It seems he said that he lent the cloaths, lest, if he had said he gave them, the creditors of the first husband should come and take them from her; pretending, that she was looked upon as the relict of her first husband, before she was married to the second.

Dec. 21st. It seems very probable, from the following observations, that long before the arrival of the Swedes, there have been Europeans in this province; and, in the sequel, we shall give more confirmations of this opinion. The same old Maons Keen, whom I have already mentioned before, told me repeatedly, that, on the arrival of the Swedes in the last century, and on their making a settlement, called Helsingburg, on the banks of the Delaware, somewhat below the place where Salem is now situated; they found, at the depth of twenty feet, some wells, inclosed with walls. This could

not

not be a work of the native Americans, or Indians, as bricks were entirely unknown to them when the Europeans first settled here, at the end of the fifteenth century; and they still less knew how to make use of them. The wells were at that time on the land; but in such a place, on the banks of the Delaware, as is sometimes under water, and sometimes dry. But since the ground has been so washed away, that the wells are entirely covered by the river, and the water is seldom low enough to shew the wells. As the Swedes afterwards made new wells for themselves, at some distance from the former, they discovered in the ground, some broken earthen vessels, and some entire good bricks; and they have often got them out of the ground by ploughing.

From these marks, it seems we may conclude, that, in times of yore, either Europeans, or other people of the then civilized parts of the world, have been carried hither by storms, or other accidents, settled here, on the banks of the river, burnt bricks, and made a colony here; but that they afterwards mixed with the Indians, or were killed by them. They may gradually, by conversing with the Indians, have learnt their manners, and turn of thinking. The Swedes themselves are accused, that they were already half Indians, when the English arrived in the year 1682. And we still see, that the French, English, Germans, Dutch, and other Europeans, who have lived for several years together in distant provinces, near and among the Indians, grow so like them, in their behaviour and thoughts, that they can only be distinguished by the difference of their colour. But history, together with the tradition among the Indians, assures us, that the above-mentioned wells and bricks cannot have been made at the time of Columbus's expedition, nor soon after; as the traditions of the Indians say, that those wells were made long before that epocha. This account of the wells, which had been inclosed with bricks, and of such bricks as have been found in several places in the ground, I have afterwards heard repeated by many other old Swedes.

Dec. 22d. An old farmer foretold a change of the weather, because the air was very warm this day at noon, though the morning had been very cold. This he likewise concluded, from having observed the clouds gathering about the sun. The meteorological observations annexed to this work, will prove that his observation was just.

Dec. 31st. The remedies against the tooth-ach are almost as numerous as days in a year. There is hardly an old woman but can tell you three or four score of them, of which she is perfectly certain that they are as infallible and speedy in giving relief, as a month's fasting, by bread and water, is to a burthensome paunch. Yet it happens often, nay, too frequently, that this painful disease eludes all this formidable army of remedies. However, I cannot forbear observing the following remedies, which have sometimes, in this country, been found effectual against the tooth-ach.

When the pains come from the hollowness of the teeth, the following remedy is said to have had a good effect: A little cotton is put at the bottom of a tobacco-pipe; the tobacco is put in upon it, and lighted; and you smoke till it is almost burnt up. By smoking, the oil of the tobacco gets into the cotton, which is then taken out, and applied to the tooth as hot as it can be suffered.

The chief remedy of the Iroquois, or Iroquese, against the tooth-ach, occasioned by hollow teeth, I heard of Captain Lindsey's lady, at Oswego; and she assured me, that she knew, from her own experience, that the remedy was effectual. They take the seed capsules of the Virginian Anemone, as soon as the seed is ripe, and rub them in pieces. It will then be rough, and look like cotton. This cotton-like substance is dipped into strong brandy, and then put into the hollow tooth, which commonly ceases to ache soon after. The brandy is biting or sharp, and the seeds of the anemone, as most seeds of

the polyandria polygynia class of plants (or such as have many stamina, or male flowers, and many pistilla, or female flowers) have likewise an acrimony. They therefore, both together, help to assuage the pain; and this remedy is much of the same kind with the former. Besides that, we have many seeds which have the same qualities with the American anemone.

The following remedy was much in vogue against the tooth-ach which is attended with a swelling: They boil gruel of flour of maize, and milk; to this they add, whilst it is yet over the fire, some of the fat of hogs or other suet, and stir it well, that every thing may mix equally. A handkerchief is then spread over the gruel, and applied as hot as possible to the swelled cheek, where it is kept till it is gone cool again. I have found, that this remedy has been very efficacious against a swelling; as it lessens the pain, abates the swelling, opens a gathering if there be any, and procures a good discharge of the pus.

I have seen the Iroquese boil the inner bark of the sambucus Canadensis, or Canada elder, and put it on that part of the cheek in which the pain was most violent. This, I am told, often diminishes the pain.

Among the Iroquese, or Five Nations, upon the river Mohawk, I saw a young Indian woman, who, by frequent drinking of tea, had got a violent tooth-ach. To cure it, she boiled the myrica asplenii folia, and tied it, as hot as she could bear it, on the whole cheek. She said, that remedy had often cured the tooth-ach before.

Jan. 2d, 1749. Before the Europeans, under the direction of Columbus, came to the West Indies, the savages or Indians (who lived there since times immemorial) were entirely unacquainted with iron, which appears very strange to us, as North America, almost in every part of it, contains a number of iron mines. They were therefore obliged to supply this want with sharp stones, shells, claws of birds and wild beasts, pieces of bones, and other things of that kind, whenever they intended to make hatchets, knives, and such like instruments. From hence it appears, that they must have led a very wretched life. The old Swedes, who lived here, and had had an intercourse with the Indians when they were young, and at a time when they were yet very numerous in these parts, could tell a great many things concerning their manner of living. At this time the people find accidentally, by ploughing and digging in the ground, several of the instruments which the Indians employed, before the Swedes and other Europeans had provided them with iron tools. For it is observable that the Indians at present make use of no other tools, than such as are made of iron and other metals, and which they always get from the Europeans. Of this I shall be more particular, in its proper place. But having had an opportunity of seeing and partly collecting a great many of the ancient Indian tools, I shall here describe them.

Their hatchets were made of stone. Their shape is similar to that of the wedges with which we cleave our wood, about half a foot long, and broad in proportion; they are made like a wedge, sharp at one end, but rather blunter than our wedges. As this hatchet must be fixed on a handle, there was a notch made all round the thick end. To fasten it, they split a stick at one end, and put the stone between it, so that the two halves of the stick come into the notches of the stone; then they tied the two split ends together with a rope, or something like it, almost in the same way as smiths fasten the instrument with which they cut off iron, to a split stick. Some of these stone-hatchets were not notched or furrowed at the upper end, and it seems they only held those in their hands in order to hew or strike with them, and did not make handles to them. Most of the hatchets which I have seen, consisted of a hard rock-stone; but some were made of a fine, hard, black, apyrous stone. When the

Indians intended to fell a thick strong tree, they could not make use of their hatchets, but, for want of proper instruments, employed fire. They set fire to a great quantity of wood at the roots of the tree, and made it fall by that means. But that the fire might not reach higher than they would have it, they fastened some rags to a pole, dipped them into water, and kept continually washing the tree, a little above the fire. Whenever they intended to hollow out a thick tree for a canoe, they laid dry branches all along the stem of the tree, as far as it must be hollowed out. They then put fire to those dry branches, and as soon as they were burnt, they were replaced by others. Whilst these branches were burning, the Indians were very busy with wet rags, and pouring water upon the tree, to prevent the fire from spreading too far on the sides, and at the ends. The tree being burnt hollow as far as they found it sufficient, or as far as it could, without damaging the canoe, they took the above described stone-hatchets, or sharp flints, and quartzes, or sharp shells, and scraped off the burnt part of the wood, and smoothened the boats within. By this means they likewise gave it what shape they pleased. Instead of cutting with a hatchet such a piece of wood as was necessary for making a canoe, they likewise employed fire. A canoe was commonly between thirty and forty feet long. The chief use of their hatchets was, according to the unanimous accounts of all the Swedes, to make good fields for maize-plantations; for if the ground where they intended to make a maize-field was covered with trees, they cut off the bark all round the trees with their hatchets, especially at the time when they lose their sap. By that means the tree became dry and could not take any more nourishment, and the leaves could no longer obstruct the rays of the sun from passing. The smaller trees were then pulled out by main force, and the ground was a little turned up with crooked or sharp branches.

Instead of knives they were satisfied with little sharp pieces of flint or quartz, or else some other hard kind of a stone, or with a sharp shell, or with a piece of a bone which they had sharpened.

At the end of their arrows they fastened narrow angulated pieces of stone; they made use of them, having no iron to make them sharp again, or a wood of sufficient hardness: these points were commonly flints or quartzes, but sometimes likewise another kind of a stone. Some employed the bones of animals, or the claws of birds and beasts. Some of these ancient harpoons are very blunt, and it seems that the Indians might kill birds and small quadrupeds with them; but whether they could enter deep into the body of a great beast or of a man, by the velocity which they get from the bow, I cannot ascertain; yet some have been found very sharp and well made.

They had stone pestles, about a foot long, and as thick as a man's arm. They consist chiefly of a black sort of a stone, and were formerly employed by the Indians, for pounding maize, which has, since times immemorial, been their chief and almost their only corn. They had neither wind-mills, water-mills, nor hand-mills, to grind it, and did not so much as know a mill before the Europeans came into the country. I have spoken with old Frenchmen in Canada, who told me that the Indians had been astonished beyond expression when the French set up the first wind-mill. They came in numbers, even from the most distant parts, to view this wonder, and were not tired with sitting near it for several days together, in order to observe it; they were long of opinion that it was not driven by the wind, but by the spirits who lived within it. They were partly under the same astonishment when the first water-mill was built. They formerly pounded all their corn or maize in hollow trees, with the above-mentioned pestles, made of stone. Many Indians had only wooden pestles.

pestles. The blackish stone, of which the hatchets and pestles are sometimes made, is very good for a grindstone, and therefore both the English and the Swedes employ the hatchets and pestles chiefly as grindstones, at present, when they can get them.

The old boilers or kettles of the Indians, were either made of clay, or of different kinds of potstone, (*lapis ollaris*). The former consisted of a dark clay, mixt with grains of white sand or quartz, and burnt in the fire. Many of these kettles have two holes in the upper margin, on each side one, through which the Indians put a stick, and held the kettle over the fire, as long as it was to boil. Most of the kettles have no feet. It is remarkable that no pots of this kind have been found glazed, either on the outside or the inside. A few of the oldest Swedes could yet remember seeing the Indians boil their meat in these pots. They are very thin, and of different sizes; they are made sometimes of a greenish, and sometimes of a grey potstone, and some are made of another species of apyrous stone; the bottom and the margin are frequently above an inch thick. The Indians, notwithstanding their being unacquainted with iron, steel, and other metals, have learnt to hollow out very ingeniously these pots or kettles of potstone.

The old tobacco-pipes of the Indians are likewise made of clay, or potstone, or serpentine-stone. The first sort are shaped like our tobacco-pipes, though much coarser and not so well made. The tube is thick and short, hardly an inch long, but sometimes as long as a finger; their colour comes nearest to that of our tobacco-pipes which have been long used. Their tobacco-pipes of potstone are made of the same stone as their kettles. Some of them are pretty well made, though they had neither iron nor steel. But besides these kinds of tobacco-pipes, we find another sort of pipes, which are made with great ingenuity, of a very fine red potstone, or a kind of serpentine marble. They are very scarce, and seldom made use of by any other than the Indian sachems, or elders. The fine red stone, of which these pipes are made, is likewise very scarce, and is found only in the country of those Indians who are called Ingouez, and who, according to father Charlevoix, live on the other side of the river Mississippi*. The Indians themselves commonly value a pipe of this kind as much as a piece of silver of the same size, and sometimes they make it still dearer. Of the same kind of stone commonly consists their pipe of peace, which the French call *calumet de paix*, and which they make use of in their treaties of peace and alliances. Most authors who have wrote of these nations mention this instrument, and I intend to speak of it when an opportunity offers.

The Indians employ hooks made of bone, or bird's claws, instead of fishing-hooks. Some of the oldest Swedes here told me, that when they were young, a great number of Indians had been in this part of the country, which was then called New Sweden, and had caught fishes in the river Delaware with these hooks.

They made fire by rubbing one end of a hard piece of wood continually against another dry one, till the wood began to smoke, and afterwards to burn.

Such were the tools of the ancient Indians, and the use which they made of them, before the Europeans invaded this country, and before they (the Indians) were acquainted with the advantages of iron. North America abounds in iron-mines, and the Indians lived all about the country before the arrival of the Europeans, so that several places can be shewn in this country where at present there are iron-mines, and where not a hundred years ago, stood great towns or villages of the Indians. It is

* See his *Journal historique d'un voyage de l'Amerique*. Tome v. p. m. 311. and the 13th letter.

therefore

therefore very remarkable, that the Indians did not know how to make use of a metal or ore which was always under their eyes, and on which they could not avoid treading every day. They even lived upon the very spots where iron ores were afterwards found, and yet they often went many miles in order to get a wretched hatchet, knife, or the like, as above described. They were forced to employ several days in order to sharpen their tools, by rubbing them against a rock, or other stones, though the advantage was far from being equal to the labour. For they could never cut down a thick tree with their hatchets, and with difficulty they felled a small one. They could not hollow out a tree with their hatchets, or do a hundredth part of the work which we can perform with ease, by the help of our iron hatchets. Thus we see how disadvantageous the ignorance and inconsiderate contempt of useful arts is. Happy is the country which knows their full value!

January the 5th. Christmas-day was celebrated this day by the Swedes and English, for they kept them to the old stile.

January the 6th. There are a great number of hares in this country, but they differ from our Swedish ones in their size, which is very small, and but little bigger than that of a rabbit; they keep almost the same grey colour both in summer and winter, which our northern hares have in summer only; the tip of their ears is always grey, and not black; the tail is likewise grey on the upper side, at all seasons; they breed several times a year: in spring they lodge their young ones in hollow trees, and in summer, in the months of June and July, they breed in the grass. When they are surprised they commonly take refuge in hollow trees, out of which they are taken by means of a crooked stick, or by cutting a hole into the tree, opposite to the place where they lie; or by smoke, which is occasioned by making a fire on the outside of the tree. On all these occasions the greyhounds must be at hand. These hares never bite, and can be touched without any danger. In day-time they usually lie in hollow trees, and hardly ever stir from thence, unless they be disturbed by men or dogs; but in the night they come out, and seek their food. In bad weather, or when it snows, they lie close for a day or two, and do not venture to leave their retreats. They do a great deal of mischief in the cabbage-fields; but apple-trees suffer infinitely more from them, for they peel off all the bark next to the ground. The people here agreed that the hares are fatter in a cold and severe winter, than in a mild and wet one, of which they could give me several reasons, from their own conjectures. The skin is useless, because it is so loose that it can be drawn off; for when you would separate it from the flesh, you need only pull at the fur, and the skin follows: these hares cannot be tamed. They were at all times, even in the midst of winter, plagued with a number of common fleas*.

Jan. 16th. The common mice were in great abundance in the towns and in the country; they do as much mischief as in the old countries. Oldmixon in his book, the British Empire in America, vol. i. p. 444, writes, that North America had neither rats nor mice before European ships brought them over. How far this is true I know not. It is undoubted, that in several desert places, where no man ever lived, I have seen and killed the common mice in crevices of stones or mountains; and is it probable that all such mice as are spread in this manner, throughout the inland

* This account sufficiently proves, that these hares are a species distinct from our European reddish grey kind, and also of that species or variety only, which in the northern parts of Europe and Asia is white in winter, with black tipped ears, and has a grey coat in summer. Upon a closer examination naturalists will perhaps find more characters to distinguish them more accurately. F.

parts of the country, derive their origin from those which were brought over from Europe?

Rats likewise may be ranked among those animals which do great damage in this country. They live both in the cities and in the country, and destroy their provisions. Their size is the same with that of our rats, but their colour differs; for they are grey, or blue-grey. I enquired of the Swedes, whether these rats had been here prior to the arrival of the Europeans, or whether they came over in the ships? But I could not get an answer which I might depend upon. All agreed, that a number of these dangerous and mischievous animals were every year brought to America, by ships from Europe and other countries. But Mr. Bartram maintained, that before the Europeans settled here, rats had been in the country; for he saw a great number of them on the high mountains which are commonly called the blue mountains, where they lived among stones, and in the subterraneous grottoes which are in those mountains. They always lie very close in the day-time, and you hardly ever see one out; but at night they come out, and make a terrible noise. When the cold was very violent, they seemed quite torpid; for during the continuance of the cold weather, one could not hear the least noise or shrieking, occasioned by them. It is to be observed, that neither the Swedes nor the English have any dark windows in their houses here. There is hardly a dormer-window in the garret; but only loose boards. The walls in the wooden houses are frequently not closed, even with moss; so that the rooms, though they have fires in them, are no warmer than the outside apartment, or hall. The rooms where the servants sleep have never any fire in them, though the winter is pretty severe sometimes. The rats have therefore, little or no warmth in winter; but as soon as a milder season makes its appearance, they come out again. We observed several times this winter, that the rats were very active, and made an unusual noise all night, just before a severe cold. It seems, they had some sensation of cold weather being at hand; and that they therefore eat sufficiently, or stored up provisions. In mild weather, they were used to carry away apples, and other provisions: therefore, we could always conclude with certainty, when the rats made an uncommon noise at night or were extremely greedy, that a severe cold would ensue. I have already observed, that the grey squirrels in this country have the same quality. When these, and the common mice eat maize, they do not consume the whole grains, but only the loose, sweet, and soft kernel, and leave the rest.

Jan 21st. The cold now equalled that of Sweden, though this country is so much more southerly. The Celsian or Swedish thermometer was twenty two degrees below the freezing point in the morning. As the rooms are without any shutters here, the cracks in the walls not closed with moss, and sometimes no fire-place or chimney in the room, the winters here must be very disagreeable to one who is used to our Swedish warm winter-rooms. But the greatest comfort here is, that the cold is of a very short duration. Some days of this month, the room which I lodged in was such, that I could not write two lines before the ink would freeze in my pen. When I did not write, I could not leave the ink-stand on the table; but was forced to put it upon the hearth, or into my pocket. Yet, notwithstanding it was so cold, as appears from the meteorological observations annexed to this work; and though it snowed sometimes for several days and nights together, and the snow lay near six inches high upon the ground; yet all the cattle are obliged to stay, day and night, in the fields during the whole winter. For neither the English nor the Swedes had any stables; but the Germans and Dutch had preserved the custom of their country, and generally kept their cattle in stables during winter. Almost all the old Swedes say, that on their first

first arrival in this country, they made stables for their cattle, as is usual in Sweden; but as the English came and settled among them, and left their cattle in the fields all winter, as is customary in England, they left off their former custom and adopted the English one. They owned, however, that the cattle suffered greatly in winter when it was very cold, especially when it froze after a rain; and that some cattle were killed by it in several places, in the long winter of the year 1741. About noon, the cattle went out into the woods, where there were yet some leaves on the young oak; but they did not eat the leaves, and only bit off the extremities of the branches and the tops of the youngest oaks. The horses went into the maize fields, and eat the dry leaves on the few stalks which remained. The sheep ran about the woods and on the corn-fields. The chickens perched on the trees of the gardens at night; for they had no particular habitations. The hogs were likewise exposed to the roughness of the weather, within a small inclosure.

A small kind of birds, which the Swedes call snow-bird, and the English chuck-bird, came into the houses about this time. At other times, they sought their food along the roads. They are seldom seen but when it snows. Catesby, in his Natural History of Carolina, calls it *passer nivalis*; and Dr. Linnæus, in his *Systema Naturæ*, calls it *emberiza hyemalis*.

The river Delaware was now covered with ice opposite Philadelphia, and even somewhat lower, and the people could walk over it; but nobody ventured to ride over on horseback.

Jan. 22d. There are partridges in this country; but they are not of the same kind with ours. The Swedes called them sometimes raphons (partridges), and sometimes aekkerhoens (quails). Some of the English likewise called them partridges, others quails. Their shape is almost the same with that of the European partridges, and their nature and qualities the same: I mean, they run and hide themselves, when pursued. But they are smaller, and entirely different in colour. In this work I cannot insert at large, the descriptions which I have made of birds, insects, quadrupeds, and plants; because it would swell my volume too much. I only observe, that the feet are naked and not hairy; the back is spotted with brown, black, and white; the breast is dark yellow; and the belly whitish, with black edges on the tips of the feathers. The size is nearly that of a hazel-hen, or *tetrao bonasia*. Above each eye is a narrow stroke of whitish yellow. These birds are numerous in this part of the country. On going but a little way, you meet with great coveys of them. However, they keep at a great distance from towns; being either extirpated or frightened there by the frequent shooting. They are always in lesser or greater coveys, do not fly very much, but run in the fields, and keep under the bushes and near the inclosures, where they seek their food. They are reckoned very delicious food; and the people here prepare them in different ways. For that purpose they are caught, and shot in great numbers. They are caught by putting up a sieve, or a square open box, made of boards, in the places they frequent. The people strew some oats under the sieve, and lift it up on one side by a little stick, and as soon as the partridges are got under the sieve, in order to pick up the oats, it falls, and they are caught alive. Sometimes they get several partridges at once. When they run in the bushes, you can come very near them, without starting them. When they sleep at night, they come together in an heap. They scratch in the bushes and upon the field, like common chickens. In spring they make their nests, either under a bush or in the maize fields, or on the hills in the open air: they scratch some hay together, into which they lay about thirteen white eggs. They eat several sorts of corn, and seeds of grass. They have likewise been seen eating
the

the berries of sumach, or *rhus glabra*. Some people have taken them young, and kept them in a cage till they were tame: then they let them go; and they followed the chickens, and never left the court-yards.

The inclosures made use of in Pennsylvania and New Jersey, but especially in New York, are those, which on account of their serpentine form resembling worms, are called worm-fences in English. The poles which compose this fence are taken from different trees; but they are not all of equal duration: the red cedar is reckoned the most durable of any, for it holds out above thirty years: but it is very scarce, and grows only in a single place hereabouts, so that no fences can be made of it. It is true, the fences about Philadelphia (which however are different from the worm-fences) are all made of red cedar; but it has been brought by water from Egg-harbour, where it grows in abundance. The supports on which the poles lie are made of the white cedar, or *cupressus thyoides*, and the poles which are laid between them of the red cedar or *juniperus Virginiana*. Next to the cedar-wood, oak and chefnut are reckoned best. Chefnut is commonly preferred, but it is not every where so plentiful as to be made into fences; in its stead they make use of several sorts of oak. In order to make inclosures, the people do not cut down the young trees, as is common with us, but they fell here and there thick trees, cut them in several places, leaving the pieces as long as it is necessary, and split them into poles of the usual thickness; a single tree affords a multitude of poles. Several old men in this country told me, that the Swedes, on their arrival here, made such inclosures as are usual in Sweden, but they were forced to leave off in a few years time, because they could not get posts enough; for they had found by experience, that a post being put into the ground would not last above four or six years before the part under ground was entirely rotten; but the chief thing was, that they could not get any switches for to tie them together; they made some of hiccory, which is one of the toughest trees in this country, and of the white oak; but in the space of a year or two the switches were rotten, and the fence fell in pieces of itself, therefore they were forced to give over making such inclosures. Several of the new comers again attempted, but with the same bad success, to make fences with posts and switches. The Swedish way of inclosing therefore will not succeed here. Thus the worm-fences are one of the most useful sorts of inclosures, especially as they cannot get any post, made of the woods of this country, to stay above six or eight years in the ground without rotting. The poles in this country are very heavy, and the posts cannot bear them well, especially when it blows a storm; but the worm-fences are easily put up again when they are thrown down. Experience has shewn that an inclosure made of chefnut or white oak seldom holds out above ten or twelve years, before the poles and posts are thoroughly rotten: when the poles are made of other wood, the fences hardly stand six or eight years. Considering how much more wood the worm-fences require, (since they run in bendings) than other inclosures which go in straight lines, and that they are so soon useless, one may imagine how the forests will be consumed, and what sort of an appearance the country will have forty or fifty years hence, in case no alteration is made; especially as woods is really squandered away in immense quantities, day and night all the winter, or nearly one half of the year, for fuel.

Feb. 8th. The musk-rats, so called by the English in this country, on account of their scent, are pretty common in North America; they always live near the water, especially on the banks of lakes, rivers, and brooks. On travelling to places where they are, you see the holes which they have dug in the ground just at the water's edge, or a little above its surface. In these holes they have their nests, and there they con-

tinue whenever they are not in the water in pursuit of food. The Swedes call them *desmans rattor* *, and the French, *rats musqués*. Linnæus calls this animal *castor zibethicus*. Their food is chiefly the muscles which lie at the bottom of lakes and rivers; you see a number of such shells near the entrance of their holes. I am told they likewise eat several kinds of roots and plants. They differ from the European musk-rat, or Linnæus's *castor moschatus*. The teeth are the same in both; the tail of the American is compressed on the sides so, that one sharp edge goes upwards and the other downwards: the hind feet are not palmated, or joined by a moveable skin, but are peculiar for having on both sides of the feet, long, white, close, pectinated, off-standing hair, besides the short hair with which the feet are quite covered. Such hairs are on both sides of the toes, and do the same service in swimming as a web. Their size is that of a little cat, or to be more accurate, the length of the body is about ten inches, and the tail of the same length: the colour of the head, neck, back, sides, and of the outside of the thighs, is blackish brown; the hairs are soft and shining; under the neck, on the breasts, and on the inside of the thighs, they are grey. They make their nests in the dykes that are erected along the banks of rivers to keep off the water from the adjoining meadows; but they often do a great deal of damage, by spoiling the dykes with digging, and opening passages for the water to come into the meadows; whereas beavers stop up all the holes in a dyke or bank. They make their nests of twigs and such like things externally, and carry soft stuff into them for their young ones to lie upon. The Swedes asserted that they could never observe a diminution in their number, but believed that they were as numerous at present as formerly. As they damage the banks so considerably the people are endeavouring to extirpate them when they can find out their nests; the skin is paid for, and this is an encouragement towards catching the animal. A skin of a musk-rat formerly cost but threepence, but at present they gave from sixpence to ninepence. The skins are chiefly employed by hatters, who make hats of the hair, which are said to be nearly as good as beaver hats. The musk-rats are commonly caught in traps, with apples as baits. In the country of the Iroquese, I saw those Indians following the holes of the musk-rats, by digging till they came to their nests, where they killed them all. Nobody here eats their flesh; I do not know whether the Indians eat it, for they are commonly not over nice in the choice of meat. The musk-bag is put between the cloaths, in order to preserve them against worms. It is very difficult to extirpate these rats when they are once settled in a bank. A Swede, however, told me, that he had freed his bank, or piece of dyke along the river, from them in the following manner: he sought for all their holes, stopped them all up with earth, excepting one, on that side from whence the wind came. He put a quantity of sulphur into the open entrance, set fire to it, and then closed the hole, leaving but a small one for the wind to pass through. The smoke of the sulphur then entered their most remote nests, and stifled all the animals. As soon as the sulphur was burnt, he was obliged to dig up part of the ground in the bank, where they had their nests; and he found them lie dead by heaps. He sold the skins, and they paid his trouble, not to mention the advantage he got by clearing his bank of the musk-rats.

Beavers were formerly abundant in New Sweden, as all the old Swedes here told me. At that time they saw one bank after another raised in the rivers by beavers.

* *Desm* signifies musk in the Swedish, and in some provincial dialects of the German language; consequently, *desman rat* is nothing but musk-rat; and from hence M. de Buffon has formed his *desman* or Russian musk-rat. F.

But after the Europeans came over in great numbers, and cultivated the country better, the beavers have been partly killed, and partly extirpated, and partly are removed higher into the country, where the people are not so numerous. Therefore there is but a single place in Pennsylvania where beavers are to be met with; their chief food is the bark of the beaver-tree, or *magnolia glauca*, which they prefer to any other. The Swedes therefore put branches of this tree near the beaver-dykes, into traps, which they laid for the beavers, whilst they were yet plentiful; and they could almost be certain of good success. Some persons in Philadelphia have tamed beavers, so that they go a fishing with them, and they always come back to their masters. Major Roderfert, in New York, related that he had a tame beaver above half a year in his house, where he went about quite loose, like a dog. The Major gave him bread, and sometimes fish, which he was very greedy of: he got as much water in a bowl as he wanted. All the rags and soft things he could meet with he dragged into a corner, where he was used to sleep, and made a bed of them. The cat in the house having kittens, took possession of his bed, and he did not hinder her. When the cat went out, the beaver often took the kitten between his fore-paws, and held it to his breast to warm it, and doated upon it; as soon as the cat returned he gave her the kitten again. Sometimes he grumbled, but never did any hurt, or attempted to bite.

The English and the Swedes gave the name of mink to an animal of this country, which likewise lives either in the water, or very near it. I have never had an opportunity to see any more than the skin of this animal; but the shape of the skin, and the unanimous accounts I have heard of it make me conclude, with much certainty, that it belonged to the genus of weasels or *mustelæ*. The greatest skin I ever saw, was one foot eight inches long, a lesser one was about ten inches long, and about three inches one-third broad, before it was cut; the colour was dark brown, and sometimes almost black; the tail was bushy, as that of a marten; the hair was very close, and the ears short, with short hair. The length of the feet belonging to the lesser skin was about two inches long. I am told this animal is so similar to the American polecat, or *viverra putorius*, that they are hardly distinguishable*. I have had the following accounts given me of its way of living: it seldom appears in day time, but at night it comes out of the hollow trees, on the banks of rivers. Sometimes it lives in the docks and bridges, at Philadelphia, where it is a cruel enemy to the rats. Sometimes it gets into the court-yards at night, and creeps into the chicken-house, through a small hole, where it kills all the poultry, and sucks their blood, but seldom eats one. If it meets with geese, fowls, ducks, or other birds on the road, it kills and devours them. It lives upon fish and birds. When a brook is near the houses, it is not easy to keep ducks and geese, for the mink, which lives near rivers, kills the young ones. It first kills as many as it can come at, and then it carries them off, and feasts upon them. In banks and dykes near the water, it likewise does mischief with digging. To catch it the people put up traps, into which they put heads of birds, fishes, or other meat. The skin is sold in the towns, and at Philadelphia; they give twenty-pence and even two shillings a-piece for them, according to their size. Some of the ladies get muffs made of these skins; but for the greatest part they are sent over to England, from whence they are distributed to other countries. The old Swedes told me that the Indians formerly used to eat all kinds of flesh, except that of the mink.

I have already mentioned something of the raccoon; I shall here add more of the

* The mink, or minx, is a kind of small otter, which is called by Dr. Linnæus, *mustela lutreola*, in his system, i. p. 66. F.

nature of this animal, in a place which is properly its native country *. The English call it everywhere by the name of raccoon, which name they have undoubtedly taken from one of the Indian nations; the Dutch call it *hespan*; the Swedes, *espan*; and the Iroquefe, *attigbro*. It commonly lodges in hollow trees, lies close in the day-time, never going out but on a dark cloudy day; but at night it rambles and seeks its food. I have been told by several people, that in bad weather, especially when it snows and blows a storm, the raccoon lies in its hole for a week together, without coming out once; during that time it lives by sucking and licking its paws. Its food are several sorts of fruit, such as maize, whilst the ears are soft. In gardens it often does a great deal of damage among the apples, chesnuts, plumbs, and wild grapes, which are what it likes best; among the poultry it is very cruel. When it finds the hens on their eggs, it first kills them, and then eats the eggs. It is caught by dogs, which trace it back to its nest, in hollow trees, or by snares and traps, in which a chicken, some other bird, or a fish, is put as a bait. Some people eat its flesh. It leaps with all its feet at once; on account of this and of several other qualities, many people here reckoned it to the genus of bears. The skin sold for eighteen-pence at Philadelphia. I was told that the raccoons were not near so numerous as they were formerly; yet in the more inland parts they were abundant. I have mentioned the use which the hatters make of their furs; as likewise that they are easily tamed, that they are very greedy of sweet-meats, &c. in the preceding pages. Of all the North American wild quadrupeds none can be tamed to such a degree as this.

February 10th. In the morning I went to Philadelphia, where I arrived towards night. On my arrival at the ferry upon the river Delaware, I found the river quite covered with drifts of ice, which at first prevented our crossing the water. After waiting about an hour, and making an opening near the ferry, I, together with many more passengers, got over before any more shoals came on. As it began to freeze very hard soon after the twelfth of January (or new year, according to the old style) the river Delaware was covered with ice, which by the intenseness of the frost grew so strong, that the people crossed the river with horses at Philadelphia. The ice continued till the eighth of February, when it began to get loose, and the violent hurricane, which happened that night, broke it, and it was driven down so fast, that on the twelfth of February not a single shoal came down, excepting a piece or two near the shore.

Crows flew in great numbers together to-day, and settled on the tops of trees. During the whole winter we hardly observed one, though they are said to winter there. During all this spring they commonly used to sit at the tops of trees in the morning; yet not all together, but in several trees. They belong to the noxious birds in this part of the world, for they chiefly live upon corn. After the maize is planted or sown, they scratch the grains out of the ground and eat them. When the maize begins to ripen, they peck a hole into the involucre which surrounds the ear, by which means the maize is spoiled, as the rain passes through the hole which they have made, and occasions the putrefaction of the corn. Besides eating corn, they likewise steal chickens. They are very fond of dead carcases. Some years ago the government of Pennsylvania had given threepence, and that of New Jersey fourpence premium for every head of a crow, but this law has now been repealed, as the expences are too great. I have seen the young crows of this kind in several places playing with tame ones, whose wings were cut. The latter hopped about the fields, near the farm-houses where they belonged to, but always returned again, without endeavouring to escape on any occasion. These American crows are only a variety of the Royston crow, or Linnæus's *corvus cornix*.

Feb. 12th. In the afternoon I returned to Raccoon from Philadelphia.

* The village of Raccoon.

On my journey to Raccoon, I attentively observed the trees which had yet any leaves left. The leaves were pale and dried up, but not all dropt from the following trees :

The beech-tree, (*fagus sylvatica*) whether great or small ; it always kept a considerable part of its leaves during the whole winter, even till spring. The greater trees kept the lowermost leaves.

The white oak (*quercus alba*). Most of the young trees, which were not above a quarter of a yard in diameter, had the greatest part of their leaves still on them, but the old trees had lost most of theirs, except in some places where they have got new shoots. The colour of the dry leaves was much paler in the white oak than in the black one.

The black oak (as it is commonly called here). Dr. Linnæus calls it the red oak, *quercus rubra*. Most of the young trees still preserved their dried leaves. Their colour was reddish brown, and darker than that of the white oak.

The Spanish oak, which is a mere variety of the black oak. The young trees of this kind likewise keep their leaves.

A scarce species of oak which is known by its leaves having a triangular apex or top, whose angles terminate in a short bristle ; the leaves are smooth below, but woolly above*. The young oaks of this species had still their leaves.

When I came into any wood where the above kinds of oaks were only twenty years, and even not so old, I always found the leaves on them.

It seems that Providence has, besides other views, aimed to protect several sorts of birds, it being very cold and stormy about this time, by preserving even the dry leaves on these trees. I have this winter at several times seen birds hiding in the trees covered with old leaves, during a severe cold or storm.

Feb. 13th. As I began to dig a hole to-day, I found several insects which were crept deep into the ground in order to pass the winter. As soon as they came to the air, they moved their limbs a little, but had not strength sufficient for creeping, except the black ants, which crept a little, though slowly.

Formica nigra, or the black ant, were pretty numerous, and somewhat lively. They lay about ten inches below the surface.

Carabus latus. Some of these lay at the same depth with the ants. This is a very common insect in all North America.

Scarabæus ; chestnut-coloured, with a hairy thorax ; the elytræ shorter than the abdomen, with several longitudinal lines, beset with hair. It is something similar to the cock-chaffer, but differs in many respects. I found it very abundant in the ground.

Gryllus campestris, or the field-cricket. They lay ten inches deep ; they were quite torpid, but as soon as they came into a warm place, they revived and were quite lively. In summer I have found these crickets in great plenty in all parts of North America where I have been. They leaped about on the fields, and made a noise like that of our common house crickets, so that it would be difficult to distinguish them by their chirping. They sometimes make so great a noise that it causes pain in the ears, and even two people cannot understand each other. In such places where the rattlesnakes live, the field-crickets are very disagreeable, and in a manner dangerous, for their violent chirping prevents the warning which that horrid snake gives with its rattle from reaching the ear, and thus deprives one of the means of avoiding it. I

* This seems to be nothing but a variety of the *quercus rubra*, Linn. F.

have already mentioned that they likewise winter sometimes in chimnies. Here they lie all winter in the ground, but at the beginning of March, as the air was grown warm, they came out of their holes, and began their music, though at first it was but very faint and rarely heard. When we were forced on our travels to sleep in uninhabited places, the crickets had got into the folds of our clothes, so that we were obliged to stop an hour every morning in examining our clothes, before we could get rid of them.

The red ants (*formica rufa*) which in Sweden make the great ant-hills, I likewise found to-day and the following day; they were not in the ground, for when my servant Yungstroem cut down old dry trees, he met with a number of them in the cracks of the tree. These cracks were at the height of many yards in the tree, and the ants were crept so high, in order to find their winter habitation. As soon as they came into a warm place, they began to stir about very briskly.

Feb. 14th. The Swedes and the English gave the name of blue bird to a very pretty little bird, which was of a fine blue colour. Linnæus calls it *motacilla sialis*. Catesby has drawn it in his *Natural History of Carolina*, vol. 1. pl. 47, and described it by the name of *rubecula Americana cærulea*; and Edwards has represented it in his *Natural History of Birds*, plate and page 24. In my own journal I called it *motacilla cærulea nitida, pectore rufo, ventre albo*. In Catesby's plate I must observe, that the colour of the breast ought to be dirty red or ferruginous; the tibiae and feet black as jet; the bill too should be quite black; the blue colour in general ought to be much deeper, more lively and shining; no bird in Sweden has so shining and deep a blue colour as this. The jay has perhaps a plumage like it. The food of the blue bird is not merely insects, he likewise feeds upon plants; therefore in winter, when no insects are to be met with, they come to the farm-houses in order to subsist on the seeds of hay and other small grains.

Red-bird is another species of small bird. Catesby has likewise figured it*. Dr. Linnæus calls it *loxia cardinalis*. It belongs to that class of birds which are enemies to bees, lying in wait for them and eating them. I fed a cock for five months together in a cage; it eat both maize and buck-wheat, for I gave it nothing else. By its song it attracted others of its species to the court-yard; and after we had put some maize on the ground under the window where I had it, the others came there every day to get their food; it was then easy to catch them by means of traps. Some of them, especially old ones, both cocks and hens, would die with grief on being put into cages. Those on the other hand which were grown tame, began to sing exceedingly sweet. Their note very nearly resembles that of our European nightingale, and on account of their agreeable song, they are sent to London in cages. They have such strength in their bill that when you hold your hand to them they pinch it so hard as to cause the blood to issue forth. In spring they sit warbling on the tops of the highest trees in the woods in the morning. But in cages they sit quite still for an hour; the next hour they hop up and down, singing; and so they go on alternately all day.

Feb. 17th. Cranes (*ardea Canadensis*) were sometimes seen flying in the day-time to the northward. They commonly stop here early in spring, for a short time, but they do not make their nests here, for they proceed on more to the north. Certain old Swedes told me that in their younger years, as the country was not yet much cultivated, an incredible number of cranes were here every spring; but at present they

* See Catesby's *Natural History*, vol. 1. pl. 38. *Coccothraustes rubra*.

are not so numerous. Several people who have settled here eat their flesh, when they can shoot them. They are said to do no harm to corn or the like.

Feb. 23d. This morning I went down to Penn's Neck, and returned in the evening.

Snow lay yet in several parts of the woods, especially where trees the stood very thick, and the sun could not make its way; however, it was not above four inches deep. All along the roads was ice, especially in the woods, and therefore it was very difficult to ride horses which were not sharp-shoed. The people who are settled here know little of sledges, but ride on horseback to church in winter, though the snow is sometimes near a foot deep. It lays seldom above a week before it melts, and then some fresh snow falls.

A species of birds, called by the Swedes maize-thieves, do the greatest mischief in this country. They have given them that name because they eat maize both publicly and secretly, just after it is sown and covered with the ground, and when it is ripe. The English call them black-birds. There are two species of them, both described and drawn by Catesby*. Though they are very different in species, yet there is so great a friendship between them, that they frequently accompany each other in mixed flocks. However, in Pennsylvania, the first sort are more obvious, and often fly together, without any of the red-winged stares. The first sort, or the purple daws, bear, in many points, so great a likeness to the daw, the stare, and the thrush, that it is difficult to determine to which genus they are to be reckoned, but seem to come nearest to the stare; for the bill is exactly the same with that of the thrush, but the tongue, the flight, their sitting on the trees, their song, and shape, make it entirely a stare; at a distance they look almost black, but close by they have a very blue or purple cast, but not so much as Catesby's print: their size is that of a stare; the bill is conic, almost subulated, straight, convex, naked at the base, black, with almost equal mandibles, the upper being only a very little longer than the lower; the nostrils are oblong, yet a little angulated, so as to form almost squares: they are placed obliquely at the base of the bill, and have no hair; there is a little horny knob, or a small prominence, on the upper side of them: the tongue is sharp and bifid at the point: the iris of the eyes is pale: the forehead, the crown, the nucha, the upper part, and the sides of the neck, are of an obscure blue and green shining colour: the sides of the head under the eyes are obscurely blue; all the back and coverts of the wings are purple; the upper coverts of the tail are not of so conspicuous a purple colour, but as it were blackened with foot: the nine primary quill-feathers are black: the other secondary ones are likewise black, but their outward margin is purple; the twelve tail feathers have a blackish purple colour, and their tips are round; those on the outside are the shortest, and the middle extremely long. When the tail is spread, it looks round towards the extremity. The throat is blueish green, and shining; the breast is likewise black or shining green, according as you turn it to the light; the belly is blackish, and the vent feathers are obscurely purple-coloured; the parts of the breast and belly which are covered by the wings, are purple-coloured; the wings are black below, or rather sooty; and the thighs have blackish feathers; the legs (tibiae), and the toes are of a shining black. It has four toes, as most birds have. The claws are black, and that on the back toe is longer than the rest. Dr. Linnæus calls this bird *gracula quiscal*.

* See Catesby's Natural History of Carolina, vol. i. table 12, the purple daw; and table 13, the red-winged starling.

A few of these birds are said to winter in swamps, which are quite overgrown with thick woods; and they only appear in mild weather. But the greatest number go to the south at the approach of winter. To-day I saw them, for the first time this year. They flew in great flocks already. Their chief and most agreeable food is maize. They come in great swarms in spring, soon after the maize is put under ground. They scratch up the grains of maize, and eat them. As soon as the leaf comes out, they take hold of it with their bills, and pluck it up, together with the corn or grain; and thus they give a great deal of trouble to the country people, even so early in spring. To lessen their greediness of maize, some people dip the grains of that plant in a decoction of the root of the *veratrum album*, or white hellebore, (of which I shall speak in the sequel) and plant them afterwards. When the maize-thief eats a grain or two, which are so prepared, his head is disordered, and he falls down: this frightens his companions, and they dare not venture to the place again. But they repay themselves amply towards autumn, when the maize grows ripe; for at that time, they are continually feasting. They assemble by thousands in the maize-fields, and live at discretion. They are very bold; for when they are disturbed, they only go and settle in another part of the field. In that manner they always go from one end of the field to the other, and do not leave it till they are quite satisfied. They fly in incredible swarms in autumn; and it can hardly be conceived whence such immense numbers of them should come. When they rise in the air they darken the sky, and make it look quite black. They are then in such great numbers, and so close together, that it is surprising how they find room to move their wings. I have known a person shoot a great number of them on one side of a maize-field, which was far from frightening the rest; for they only just took flight and dropped at about the distance of a musket-shot in another part of the field, and always changed their place when their enemy approached. They tired the sportsman before he could drive them from off the maize, though he killed a great many of them at every shot. They likewise eat the seeds of the aquatic tare-grass (*zizania aquatica*) commonly late in autumn, after the maize is got in. I am told, they likewise eat buck-wheat and oats. Some people say, that they even eat wheat, barley, and rye, when pressed by hunger; yet, from the best information I could obtain, they have not been found to do any damage to these species of corn. In spring, they sit in numbers on the trees, near the farms; and their note is pretty agreeable. As they are so destructive to maize, the odium of the inhabitants against them is carried so far, that the laws of Pennsylvania and New Jersey have settled a premium of threepence a dozen for dead maize-thieves. In New England, the people are still greater enemies to them; for Dr. Franklin told me, in the spring of the year 1750, that, by means of the premiums which have been settled for killing them in New England, they have been so extirpated, that they are very rarely seen, and in a few places only. But as, in the summer of the year 1749, an immense quantity of worms appeared on the meadows, which devoured the grass, and did great damage, the people have abated their enmity against the maize-thieves; for they thought they had observed, that those birds lived chiefly on these worms before the maize is ripe, and consequently extirpated them, or at least prevented their spreading too much. They seem therefore to be entitled, as it were, to a reward for their trouble. But after these enemies and destroyers of the worms (the maize-thieves) were extirpated, the worms were more at liberty to multiply; and therefore they grew so numerous that they did more mischief now than the birds did before. In the summer 1749, the worms left so little hay in New England that the inhabitants were forced to get hay from Pennsylvania and even from Old England. The maize-thieves have enemies besides the human species. A species of little hawks live upon them,

them, and upon other little birds. I saw some of these hawks driving up the maize-thieves, which were in the greatest security, and catching them in the air. Nobody eats the flesh of the purple maize-thieves or daws (*gracula quiscalia*); but that of the red-winged maize-thieves, or starlings (*oriolus phoeniceus*) is sometimes eaten. Some old people have told me, that this part of America, formerly called New Sweden, still contained as many maize-thieves as it did formerly. The cause of this they derive from the maize, which is now sown in much greater quantity than formerly; and they think that the birds can get their food with more ease at present.

The American whortleberry, or the *vaccinium hispidulum*, is extremely abundant over all North America, and grows in such places where we commonly find our whortle-berries in Sweden. The American ones are bigger, but in most things so like the Swedish ones, that many people would take them to be mere varieties. The English call them cranberries, the Swedes *tranbær*, and the French in Canada *atopa*, which is a name they have borrowed from the Indians. They are brought to market every Wednesday and Saturday at Philadelphia, late in autumn. They are boiled and prepared in the same manner as we do our red whortle-berries, or *vaccinium vitis idæa*; and they are made use of during winter, and part of summer, in tarts and other kinds of pastry. But as they are very sour, they require a deal of sugar; but that is not very dear in a country where the sugar-plantations are not far off. Quantities of these berries are sent over, preserved, to Europe and to the West Indies.

Mar. 2d. *Mytilus anatinus*, a kind of muscle-shells, was found abundantly in little furrows, which crossed the meadows. The shells were frequently covered on the outside with a thin crust of particles of iron, when the water in the furrows came from an iron mine. The Englishmen and Swedes settled here, seldom made any use of these shells; but the Indians who formerly lived here, broiled them and eat the flesh. Some of the Europeans eat them sometimes.

Mar. 3d. The Swedes call a species of little birds, *snofogel*, and the English call it snow-bird. This is Dr. Linnæus's *emberiza hyemalis*. The reason why it is called snow-bird is because it never appears in summer, but only in winter, when the fields are covered with snow. In some winters they come in as great numbers as the maize-thieves, fly about the houses and barns, into the gardens, and eat the corn, and the seeds of grass, which they find scattered on the hills.

At eight o'clock at night we observed a meteor, commonly called a snow-fire*.

Wild pigeons, (*columba migratoria*), flew in the woods in numbers beyond conception; and I was assured that they were more plentiful than they had been for several years past. They came this week, and continued here for about a fortnight, after which they all disappeared, or advanced further into the country, from whence they came. I shall speak of them more particularly in another place.

Mar. 7th. Several people told me, that it was a certain sign of bad weather here when a thunder-storm arose in the south or south-west, if it spread to the east and afterwards to the north: but that on the contrary, when it did not spread at all, or when it spread both east and west, though it should rise in south or south-west, yet it would prognosticate fair weather. To-day it was heard in south-west, but it did not spread at all.

Till now the frost had continued in the ground, so that if any one had a mind to dig a hole, he was forced to cut it through with a pick-axe. However it had not penetrated

* Probably nothing but an aurora borealis.

above four inches deep. But to-day it was quite gone out. This made the soil so soft, that on riding, even in the woods, the horse sunk in very deep.

I often enquired among the old Englishmen and Swedes, whether they had found that any trees were killed in very severe winters, or had received much hurt. I was answered, that young hickory-trees are commonly killed in very cold weather; and the young black oaks likewise suffer in the same manner. Nay, sometimes black oaks, five inches in diameter, were killed by the frost in a severe winter, and sometimes, though very seldom, a single mulberry-tree was killed. Peach-trees very frequently die in a cold winter, and often all the peach-trees in a whole district are killed by a severe frost. It has been found repeatedly, with regard to these trees, that they can stand the frost much better on hills than in vallies; insomuch, that when the trees in a valley were killed by frost, those on a hill were not hurt at all. They assured me that they had never observed that the black walnut-tree, the sassafras, and other trees, had been hurt in winter. In regard to a frost in spring, they had observed, at different times, that a cold night or two happened often after the trees were furnished with pretty large leaves, and that by this most of the leaves were killed. But the leaves thus killed have always been supplied by fresh ones. It is remarkable that in such cold nights the frost acts chiefly upon the more delicate trees, and in such a manner that all the leaves, to the height of seven, and even of ten feet from the ground, were killed by the frost, and all the top remained unhurt. Several old men assured me they had made this observation, and the attentive engineer, Mr. Lewis Evans, has shewn it me among his notes. Such a cold night happened here, in the year 1746, in the night between the 14th and 15th of June, new style, attended with the same effect, as appears from Mr. Evans's observations. The trees which were then in blossom had lost both their leaves and their flowers in these parts which were nearest the ground; some time after they got fresh leaves, but no new flowers. Further it is observable, that the cold nights which happen in spring and summer never do any hurt to high grounds, damaging only the low and moist ones. They are likewise very perceptible in such places where limestone is to be met with; and though all the other parts of the country be not visited by such cold nights in a summer, yet those where limestone lies have commonly one or two every summer. Frequently the places where the limestone lies are situated on a high ground; but they suffer notwithstanding their situation; whilst a little way off in a lower ground, where no limestone is to be found, the effects of the cold nights are not felt. Mr. Evans was the first who made this observation, and I have had occasion at different times to see the truth of it on my travels, as I shall mention in the sequel. The young hickory-trees have their leaves killed sooner than other trees in such a cold night, and the young oaks next; this has been observed by other people, and I have found it to be true in the years 1749 and 1750.

Mar. 11th. Of the genus of wood-peckers, we find here all those which Catesby, in his first volume of the Natural History of Carolina, has drawn and described. I shall only enumerate them, and add one or two of their qualities; but their description at large I defer for another occasion.

Picus principalis, the king of the wood-peckers, is found here, though very seldom, and only at a certain season.

Picus pileatus, the crested wood-pecker. This I have already mentioned.

Picus auratus, the gold-winged wood-pecker. This species is plentiful here, and the Swedes call it hittock, and piut; both these names have a relation to its note; it is almost continually on the ground, and is not observed to pick in the trees; it lives chiefly on insects, but sometimes becomes the prey of hawks; it is commonly very fat, and

its flesh is very palatable. As it stays all the year, and cannot easily get infected in winter, it must doubtless eat some kinds of grass or plants in the fields. Its form, and some of its qualities, make it resemble a cuckow.

Picus Carolinus, the Carolina wood-pecker. It lives here likewise, and the colour of its head is of a deeper and more shining red than Catesby has represented it, vol. i. p. 19. t. 19.

Picus villosus, the spotted, hairy, middle-sized wood-pecker is abundant here; it destroys the apple-trees by pecking holes into them.

Picus erythrocephalus, the red-headed wood-pecker. This bird was frequent in the country, and the Swedes called it merely hackspick, or wood-pecker. They give the same name to all the birds which I now enumerate, the gold-winged wood-pecker excepted. This species is destructive to maize-fields and orchards, for it pecks through the ears of maize, and eats apples. In some years they are very numerous, especially where sweet apples grow, which they eat so far that nothing but the mere peels remain. Some years ago there was a premium of twopence per head paid from the public funds, in order to extirpate this pernicious bird, but this law has been repealed. They are likewise very fond of acorns. At the approach of winter they travel to the southward. But when they stay in numbers in the woods, at the beginning of winter, the people look upon it as a sign of a pretty mild winter.

Picus varius, the lesser, spotted, yellow-bellied wood-pecker. These birds are much more numerous than many people wished; for this, as well as the preceding and succeeding species, are very hurtful to apple-trees.

Picus pubescens, or the least spotted wood-pecker. This species abounds here. Of all the wood-peckers it is the most dangerous to orchards, because it is the most daring. As soon as it has pecked a hole into the tree, it makes another close to the first, in a horizontal direction, proceeding till it has pecked a circle of holes round the tree. Therefore the apple-trees in the orchards here have several rings round their stems, which lie very close above each other, frequently only an inch distant from each other. Sometimes these wood-peckers peck the holes so close that the tree dries up. This bird, as Catesby remarks, is so like the lesser spotted wood-pecker, in regard to its colour and other qualities, that they would be taken for the same bird were not the former (the *p. pubescens*) a great deal less. They agree in the bad quality, which they both possess, of pecking holes into the apple-trees.

Rana ocellata are a kind of frogs here, which the Swedes call fill-hoppetoffer, i. e. herring-hoppers, and which now began to quack in the evening, and at night, in swamps, pools, and ponds. The name which the Swedes give them is derived from their beginning to make their noise in spring, at the same time when the people here go catching what are called herrings, which however differ greatly from the true European herrings. These frogs have a peculiar note, which is not like that of our European frogs, but rather corresponds with the chirping of some large birds, and can nearly be expressed by picet. With this noise they continued throughout a great part of spring, beginning their noise soon after sun-setting, and finishing it just before sun-rising. The sound was sharp, but yet so loud that it could be heard at a great distance. When they expected rain they cried much worse than commonly, and began in the middle of the day, or when it grew cloudy, and the rain came usually six hours after. As it snowed on the 16th of the next month, and blew very violently all day, there was not the least sign of them at night; and during the whole time that it was cold, and whilst the snow lay on the fields, the frost had so silenced them, that we could not hear one: but as soon as the mild weather returned, they began their noise again. They were

were very timorous, and it was difficult to catch them; for as soon as a person approached the place where they lived, they are quite silent, and none of them appeared. It seems that they hide themselves entirely under water, except the tip of the snout, when they cry. For when I stepped to the pond where they were in, I could not observe a single one hopping into the water. I could not see any of them before I had emptied a whole pool, where they lodged in. Their colour is a dirty green, variegated with spots of brown. When they are touched they make a noise and moan; they then sometimes assume a form as if they had blown up the hind part of the back, so that it makes a high elevation; and then they do not stir, though touched. When they are put alive into spirits of wine, they die within a minute.

Mar. 12th. The bird which the English and Swedes in this country call robin-red-breast, is found here all the year round. It is a very different bird from that which in England bears the same name. It is Linnæus's *turdus migratorius*. It sings very melodiously, is not very shy, but hops on the ground, quite close to the houses.

The hazels (*corylus avellana*) were now opening their blossoms. They succeeded best in a rich mould, and the Swedes reckoned it a sign of a good soil where they found them growing.

Mar. 13th. The alder (*betula alnus*) was just blossoming.

The *dracontium foetidum* grew plentifully in the marshes, and began to flower. Among the stinking plants, this is the most foetid; its nauseous scent was so strong that I could hardly examine the flower; and when I smelled a little too long at it my head ached. The Swedes call it *byorn-blad* (bear's-leaf) or *byorn-retter* (bear's-root.) The English call it *polecat-root*, because its effluvia are as nauseous and foetid as those of the polecat, which I have mentioned before. The flowers are purple-coloured; when they are in full flower the leaves begin to come out of the ground; in summer the cattle do not touch it. Dr. Colden told me, that he had employed the root in all cases where the root of the arum is made use of, especially against the scurvy, &c. The Swedish name it got, because the bears, when they leave their winter habitations, are fond of it in spring. It is a common plant in all North America.

The *draba verna* was abundant here, and now appeared in flower.

The *veratrum album* was very common in the marshes, and in low places, over all North America. The Swedes here call it *dack*, *dackor*, or *dackretter*, that is puppet-root, because the children make puppets of its stalks and leaves. The English call it *itch-reed* or *ellebore*. It is a poisonous plant, and therefore the cattle never touch it; however it sometimes happens that the cattle are deceived in the beginning of spring, when the pastures are bare, and eat of the fine broad green leaves of this plant, which come up very early; but such a meal frequently proves fatal to them. Sheep and geese have likewise often been killed with it. By means of its root the maize is preserved from the greediness of voracious birds in the following manner: The roots are boiled in water, into which the maize is put as soon as the water is quite cool; the maize must lie all night in it, and is then planted as usual. When the maize-thieves, crows, or other birds, pick up or pluck out the grains of maize their heads grow delirious, and they fall, which so frightens the rest, that they never venture on the field again: when those which have tasted the grains recover, they leave the field, and are no more tempted to visit it again. By thus preparing maize one must be very careful that no other creatures touch it; for when ducks or fowls eat a grain or two of the maize which is thus steeped they become very sick; but if they swallow a considerable quantity they die. When the root is thrown away raw no animal eats it;

but when it is put out boiled, its sweet taste tempts the beasts to eat it. Dogs have been seen to eat a little of it, and have been very sick after it; however they have recovered after a vomit, for when animals cannot free themselves of it by this means, they often die. Some people boil the root, and wash the scorbutic parts with the water or decoction. This is said to cause some pain, and even a plentiful discharge of urine, but it re-establishes the patient. When the children here are plagued with vermin, the women boil this root, put the comb into the decoction, and comb the head with it, and this kills them most effectually.

Mar. 17th. At the first arrival of the Swedes in this country, and long after that time, it was filled with Indians. But as the Europeans proceeded to cultivate the land, the Indians sold their land, and went further into the country. But in reality few of the Indians really left the country in this manner; most of them ended their days before, either by wars among themselves, or by the small pox, a disease which the Indians were unacquainted with before their commerce with the Europeans, and which since that time has killed incredible numbers of them. For though they can heal wounds and other external hurts, yet they know not how to proceed with fevers, or in general with internal diseases. One can imagine how ill they would succeed with the cure of the small-pox, when, as soon as the pustules appeared, they leaped, naked, into the cold water of the rivers, lakes, or fountains, and either dived over head into it, or poured it over their body in great abundance, in order to cool the heat of the fever. In the same manner they carry their children, when they have the small-pox, into the water and duck them*. But brandy has killed most of the Indians. This liquor was likewise entirely unknown to them before the Europeans came hither; but after they had tasted it they could never get enough of it. A man can hardly have a greater desire of a thing than the Indians have of brandy. I have heard them say, that to die by drinking brandy was a desirable and an honorable death; and indeed it is no very uncommon thing to kill themselves by drinking this liquor to excess.

The food of these Indians was very different from that of the inhabitants of the other parts of the world. Wheat, rye, barley, oats, and rice-groats, were quite unknown in America. In the same manner it is with regard to the fruits and herbs which are eaten in the old countries. The maize, some kinds of beans, and melons, made almost the whole of the Indian agriculture and gardening; and dogs were the only domestic animals in North America. But as their agriculture and their gardening were very trifling, and they could hardly live two months in a year upon their produce, they were forced to apply to hunting and fishing, which at that time, and even at present, are their chief subsistence, and to seek some of the wild plants and trees here. Some of the

* Professor Kalm wrote this when the truly laudable method of treating the small-pox with a cold regimen was not yet adopted; and he thought therefore the way in which the Americans treated this disease was the cause of its being so deleterious. But when the Kalmucks, in the Russian dominions, get the small-pox, it has been observed that very few escape. Of this I believe no other reason can be alledged than that the small-pox is always dangerous, either when the open pores of the human skin are too numerous, which is caused by opening them in a warm-water bath, or when they are too much closed, which is the case with all the nations that are dirty and greasy. All the American Indians rub their body with oils, the Kalmucks never wash themselves, and rub their bodies and their fur coats with grease; the Hottentots are, I believe, known to be patterns of filthiness, their bodies being richly anointed with their ornamental greasy sheep guts; this shuts up all the pores, hinders perspiration entirely, and makes the small-pox always lethal among these nations; to which we may yet add the too frequent use of spirituous inflammatory liquors, since their acquaintance with the Europeans. F.

old Swedes were yet alive, who in their younger years had an intercourse with the Indians, and had seen the minutiae of their œconomy. I was therefore desirous of knowing which of the spontaneous herbs they made use of for food at that time; and all the old men agreed that the following plants were what they chiefly consumed.

Hopnifs or hapnifs was the Indian name of a wild plant which they ate at that time. The Swedes still call it by that name, and it grows in the meadows in a good soil. The roots resemble potatoes, and were boiled by the Indians, who eat them instead of bread. Some of the Swedes at that time likewise ate this root for want of bread. Some of the English still eat them instead of potatoes. Mr. Bartram told me, that the Indians who live farther in the country do not only eat these roots, which are equal in goodness to potatoes, but likewise take the pease which lie in the pods of this plant, and prepare them like common pease. Dr. Linnæus calls the plant *glycine apios*.

Katnifs is another Indian name of a plant, the root of which they were likewise accustomed to eat, when they lived here. The Swedes still preserve this name. It grows in low, muddy, and very wet ground. The root is oblong, commonly an inch and an half long, and one inch and a quarter broad in the middle; but some of the roots have been as big as a man's fists. The Indians either boiled this root or roasted it in hot ashes. Some of the Swedes likewise eat them with much appetite, at the time when the Indians were so near the coast; but at present none of them make any use of the roots. A man of ninety-one years of age, called Nils Gustafson, told me, that he had often eaten these roots when he was a boy, and that he liked them very well at that time. He added, that the Indians, especially their women, travelled to the islands, dug out the roots, and brought them home; and whilst they had them, they desired no other food. They said that the hogs, which are amazingly greedy of them, have made them very scarce. The cattle are very fond of its leaves. I afterwards got some of these roots roasted, and in my opinion they tasted well, though they were rather dry: the taste was nearly the same with that of the potatoes. When the Indians come down to the coast and see the turnips of the Europeans, they likewise give them the name of katnifs. Their katnifs is in an arrow-head or sagittaria, and is only a variety of the Swedish arrow-head or sagittaria sagittifolia, for the plant above the ground is entirely the same, but the root under ground is much greater in the American than in the European. Mr. Osbeck in his voyage to China, mentions that the Chinese plant a sagittaria, and eat its roots. This seems undoubtedly to be a variety of this katnifs. Further in the north of this part of America, I met with the other species of sagittaria which we have in Sweden.

Taw-ho and taw-him was the Indian name of another plant, the root of which they eat. Some of them likewise call it tuckah; but most of the Swedes still knew it by the name of taw-ho. It grows in moist ground and swamps. Hogs are very greedy of the roots, and grow very fat by feeding on them. Therefore, they often visit the places where these roots grow; and they are frequently seen rooting up the mud, and falling with their whole body into the water, so that only a little of the back part was out of the water. It is therefore very plain that these roots must have been extirpated in places which are frequented by hogs. The roots often grow to the thickness of a man's thigh. When they are fresh they have a pungent taste, and are reckoned a poison in that fresh state. Nor did the Indians ever venture to eat them raw, but prepared them in the following manner: They gathered a great heap of these roots, dug
a great

a great long hole, sometimes two or three fathoms and upwards in length, into which they put the roots, and covered them with the earth that had been taken out of the hole; they made a great fire above it, which burnt till they thought proper to remove it; and then they dug up the roots, and consumed them with great avidity. These roots, when prepared in this manner, I am told, taste like potatoes. The Indians never dry and preserve them; but always take them fresh out of the marshes, when they want them. This taw-ho is the arum Virginicum, or Virginian wake-robin. It is remarkable, that the arums, with the plants next akin to them, are eaten by men in different parts of the world, though their roots, when raw, have a fiery pungent taste, and are almost poisonous in that state. How can men have learnt that plants so extremely opposite to our nature were eatable; and that their poison, which burns on the tongue, can be conquered by fire? Thus the root of the *cala palustris*, which grows in the north of Europe, is sometimes used instead of bread on an exigency. The North American Indians consume this species of arum. Those of South America, and of the West Indies, eat other species of arums. The Hottentots, at the Cape of Good Hope, in Africa, prepare bread from a species of arum or wake-robin, which is as burning and poisonous as the other species of this plant. In the same manner, they employ the roots of some kinds of arum as a food, in Egypt and Asia. Probably, that severe but sometimes useful mistress, necessity, has first taught men to find out a food which the first taste would have rejected as useless. This taw-ho seems to be the same with what the Indians in Carolina call tuckahoo.

Taw-kee is another plant, so called by the Indians, who eat it. Some of them call it taw-kim, and others tackvim. The Swedes call it always by the name of taw-kee. The plant grows in marshes, near moist and low grounds, and is very plentiful in North America. The cattle, hogs, and stags, are very fond of the leaves in spring; for they are some of the earliest. The leaves are broad, like those of the convallaria, or lilly of the valley, green on the upper side, and covered with very minute hair, so that they looked like a fine velvet. The Indians pluck the feeds, and keep them for eating. They cannot be eaten fresh or raw, but must be dried. The Indians were forced to boil them repeatedly in water, before they were fit for use; and then they ate them like pease. When the Swedes gave them butter or milk, they boiled or broiled the feeds in it. Sometimes they employ these feeds instead of bread; and they taste like pease. Some of the Swedes likewise ate them, and the old men among them told me, they liked this food better than any of the other plants which the Indians formerly made use of. This taw-kee was the *orontium aquaticum*.

Bilberries were likewise a very common dish among the Indians. They are called huckle-berries by the English here, and belong to several species of *vaccinium*, which are all of them different from our Swedish bilberry-bush, though their berries, in regard to colour, shape, and taste, are so similar to the Swedish bilberry that they are distinguished from each other with difficulty. The American ones grow on shrubs, which are from two to four feet high; and there are some species which are above seven feet in height. The Indians formerly plucked them in abundance every year, dried them either in the sun-shine or by the fire-side, and afterwards prepared them for eating in different manners. These huckle-berries are still a dainty dish among the Indians. On my travels through the country of the Iroquese, they offered me, whenever they designed to treat me well, fresh maize-bread, baked in an oblong shape, mixed with dried huckle-berries, which lay as close in it as the raisins in a plumb-pudding, of which more in the sequel. The Europeans are likewise used to collect a

quantity of these berries, to dry them in ovens, to bake them in tarts, and to employ them in several other ways. Some preserve them with treacle. They are likewise eaten raw, either quite alone or with fresh milk.

I shall, on the 27th of March, find occasion to mention another dish, which the Indians ate formerly, and still eat, on formal ceremonies.

Mar. 18th. Almost during the whole of this spring, the weather and the winds were always calm in the morning at sun rising. At eight o'clock the wind began to blow pretty hard, and continued so all day, till sun-setting; when it ceased, and all the night was calm. This was the regular course of the weather; but sometimes the winds raged without intermission for two or three days together. At noon it was commonly most violent. But in the ordinary way the wind decreased and increased as follows: At six in the morning, a calm; at seven, a very gentle western breeze, which grew stronger at eight; at eleven it was much stronger; but at four in the afternoon, it is no stronger than it was at eight o'clock in the morning; and thus it goes on decreasing till it is quite a calm, just before sun-set. The winds this spring blew generally west, as appears from the observations at the end of this work.

I was told, that it was a very certain prognostic of bad weather, that when you see clouds in the horizon in the south-west, about sun-setting, and when those clouds sink below the horizon, in an hour's time, it will rain the next day, though all the forenoon be fair and clear. But if some clouds be seen in the south-west, in the horizon at sun-set, and they rise some time after, you may expect fair weather the next day.

Mar. 20th. An old Swede prognosticated a change in the weather, because it was calm to-day; for when there has been wind for some days together, and a calm follows, they say, rain or snow, or some other change in the weather will happen. I was likewise told, that some people here were of that false opinion, that the weather commonly alters on Friday; so that, in case it had rained or blown hard all the week, and a change was to happen, it would commonly fall on Friday. How far the former prognostic has been true, appears from my own observations of the weather, to which I refer.

Mar. 21st. The red maple (*acer rubrum*) and the American elm (*ulmus Americana*) began to flower at present; and some of the latter kind were already in full blossom.

Mar. 24th. I walked pretty far to-day, in order to see whether I could find any plants in flower. But the cloudy weather, and the great rains which had lately fallen, had allowed little or nothing to grow up. The leaves now began to grow pretty green. The plants which I have just before mentioned were now in full blossom.

The noble liverwort, or anemone hepatica, was now every where in flower. It was abundant; and the Swedes call it blablomster, or blue-flower. They did not know any use of it.

Near all the corn fields on which I walked to-day, I did not see a single ditch, though many of them wanted it. But the people generally followed the English way of making no ditches along the fields, without considering whether the corn-fields wanted them or not. The consequence was, that the late rain had in many places washed away great pieces of the grounds, sown with wheat and rye. There were no ridges left between the fields, except a very narrow one near the fence, which was entirely overgrown with the sumach, or *rhus glabra*, and with black-berry bushes, so that

that there the cattle could find very little or no food. The corn-fields were broad-cast, or divided into pieces, which were near seventeen feet broad, and separated from each other only by means of furrows. These pieces were uniform, and not elevated in the middle.

Meloe majalis, a species of oil-beetle, crept about on the hills.

Papilio antiopa, or willow butterfly, flew in the woods to-day, and was the first butterfly which I saw this year.

Papilio euphrosyne, or the April butterfly, was one of the scarce species. The other American insects, which I described this day and the following days, I shall mention on some other occasion. In the sequel I shall only mention those which were remarkable for some peculiar qualities.

The hay-stacks were commonly made here after the the Swedish manner, that is, in the shape of a thick and short cone, without any cover over it. When the people wanted any hay, they cut some of it loose, by a peculiar sort of a knife. However, many people, especially in the environs of Philadelphia, had hay-stacks with roofs which could be moved up and down. Near the surface of the ground were some poles laid, on which the hay was put, that the air may pass freely through it. I have mentioned before, that the cattle have no stables in winter or summer, but must go in the open air, during the whole year. However, in Philadelphia, and in a few other places, I have seen that those people who made use of the latter kind of hay-stacks, viz. that with moveable roofs, commonly had built them so that the hay was put a fathom or two above the ground, on a floor of boards, under which the cattle could stand in winter, when the weather was very bad. Under this floor of boards were partitions of boards on all the sides, which however stood far enough from each other to afford the air a free passage.

Mar. 27th. In the morning I went in order to speak with the old Swede, Nils Gustafson, who was ninety-one years of age. I intended to get an account of the former state of New Sweden. The country which I now passed through was the same with that which I had found in those parts of North America I had hitherto seen. It was diversified with a variety of little hills and vallies: the former consisted of a very pale brick-coloured earth, composed, for the greatest part, of a fine sand mixed with some mould. I saw no mountains, and no stones, except some little stones, not above the size of a pigeon's or hen's egg, lying on the hills, and commonly consisting of white quartz, which was generally smooth and polished on the outside. At the bottom, along the vallies, ran sometimes rivulets of chrystalline water, the bottom of which was covered with such white pebbles as I have just described. Now and then I met with a swamp in the vallies. Sometimes there appeared, though at considerable distances from each other, some farms frequently surrounded on all sides by corn-fields. Almost on every corn-field there yet remained the stumps of trees, which had been cut down; a proof that this country has not been long cultivated, being overgrown with trees forty or fifty years ago. The farms did not lie together in villages, or so that several of them were near each other, in one place; but they were all separated from one another. Each countryman lived by himself, had his own ground about his house, separated from the property of his neighbour. The greatest part of the land, between these farms so distant from each other, was overgrown with woods, consisting of tall trees. Here and there appeared some fallen trees, thrown down by the wind; some were torn up by the roots; others broken quite across the stem. In some parts of the country the trees were thick and tall, but in others I found large tracts covered with young trees, only twenty, thirty, or forty years old: these tracts, I am told, the Indians formerly had their little plantations in. I did not yet see any marks of the leaves coming out, and

I did

I did not meet with a flower in the woods; for the cold winds, which had blown for several days together successively, had hindered this. The woods consisted chiefly of several species of oak, and of hickory. The swamps were filled with red maple, which was all now in flower, and made these places look quite red at a distance.

The old Swede, whom I came to visit, seemed to be still pretty hearty and fresh, and could walk by the help of a stick; but he complained of having felt, in these latter years, some pains in his back and limbs, that he could keep his feet warm in winter only by sitting near the fire. He said he could very well remember the state of this country, at the time when the Dutch possessed it, and in what circumstances it was in before the arrival of the English. He added, that he had brought a great deal of timber to Philadelphia, at the time that it was built. He still remembered to have seen a great forest on the spot where Philadelphia now stands. The father of this old man had been one of the Swedes who were sent over from Sweden, in order to cultivate and inhabit this country. He returned me the following answers to the questions I asked him.

Quere, Whence did the Swedes, who first came hither, get their cattle? The old man answered, that when he was a boy, his father and other people had told him, that the Swedes brought their horses, cows, and oxen, sheep, hogs, geese, and ducks, over with them. There were but few of a kind at first, but they multiplied greatly here afterwards. He said, that Maryland, New York, New England, and Virginia, had been sooner inhabited by Europeans than this part of the country; but he did not know whether the Swedes ever got cattle of any kind from any of these provinces, except from New York. Whilst he was yet very young, the Swedes, as well as he could remember, had already a sufficient stock of all these animals. The hogs had propagated so much at that time, there being so great a plenty of food for them, that they ran about wild in the woods, and that the people were obliged to shoot them, when they intended to make use of them. The old man likewise recollected, that horses ran wild in the woods, in some places; but he could not tell whether any other kind of cattle turned wild. He thought that the cattle grow as big at present as they did when he was a boy, supposing they get as much food as they want; for in his younger years, food for all kinds of cattle was so plentiful, and even so superfluous, that the cattle were extremely well fed by it. A cow at that time gave more milk than three or four do at present; but she got more and better food at that time, than three or four get now.

Quere, Whence did the English in Pennsylvania and New Jersey get their cattle? They bought them chiefly from the Swedes and Dutch, who lived here; and a small number were brought over from Old England. The form of the cattle, and the unanimous accounts of the English here, confirmed what the old man had said.

Quere, Whence did the Swedes here settled get their several sorts of corn, and likewise their fruit-trees and kitchen-herbs? The old man told me that he had frequently heard, when he was young, that the Swedes had brought all kinds of corn, and fruits, and herbs, or seeds of them, with them. For, as far as he could recollect, the Swedes here were plentifully provided with wheat, rye, barley, and oats. The Swedes, at that time, brewed all their beer of malt made of barley, and likewise made good strong beer. They had already got distilling vessels, and made good brandy. Every one among them had not a distilling vessel, but when they intended to distil, they lent their apparatus to one another. At first they were forced to buy maize of the Indians, both for sowing and eating. But after continuing for some years in this country, they extended their maize plantations so much that the Indians were obliged, some time after, to buy maize of the Swedes. The old man likewise assured me, that the Indians formerly, and about the time of the first settling of the Swedes, were more industrious and laborious

in every branch of business than they are now. Whilst he was young, the Swedes had a great quantity of very good white cabbage. Winter cabbage, or cale, which was left on the ground during winter, was likewise abundant. They were likewise well provided with turnips: in winter they kept them in holes under ground; but the old man did not like that method; for when they had lain too long in these holes, in winter they became spungy. He preferred that method of keeping them which is now commonly adopted, and which consists in the following particulars. After the turnips have been taken out of the ground in autumn, and exposed to the air for a while, they are put in a heap upon the field, covered with straw at the top, and on the sides, and with earth over the straw. By this means they stand the winter very well here, and do not become spungy. The Indians are very fond of turnips, and called them sometimes hopnifs, sometimes katnifs. The Swedes likewise cultivated carrots, in the old man's younger years. Among the fruit-trees were apple-trees: they were not numerous, and only some of the Swedes had little orchards of them, whilst others had not a single tree. None of the Swedes made cyder, for it is come into use but lately. The Swedes brewed strong beer and small beer, and it was their common liquor; but at present there are very few who brew beer, for they commonly prepare cyder. Cherry-trees were abundant when Nils Gustafson was yet a boy. Peach-trees were at that time more numerous than at present, and the Swedes brewed beer of the fruit. The old man could not tell from whence the Swedes first of all got the peach-trees.

During the younger years of this old man, the Indians were every where spread in the country; they lived among the Swedes, and were scattered every where. The old man mentioned Swedes who had been killed by the Indians; and he mentioned two of his countrymen who had been scalped by them. They stole children from the Swedes, and carried them off, and they were never heard of again. Once they came and killed some Swedes, and took the upper part of their skulls with them; on that occasion they scalped a little girl, and would have killed her, if they had not perceived a boat full of Swedes, making towards them, which obliged them to fly; the girl was afterwards healed, but never got any hair on her head again: she was married, had many children, and lived to a considerable age. At another time the Indians attempted to kill the mother of this old man, but she vigorously resisted them, and in the mean while a number of Swedes came up, who frightened the Indians, and made them run away. Nobody could ever find out to what nation of Indians these owe their origin; for in general they lived very peaceably with the Swedes.

The Indians had their little plantations of maize in many places; before the Swedes came into this country, the Indians had no other than their hatchets made of stone. In order to make maize plantations they cut out the trees, and prepared the ground in the manner I have before mentioned. They planted but little maize, for they lived chiefly upon hunting; and throughout the greatest part of summer, their hopnifs, or the roots of the *glycine apios*, their katnifs, or the roots of the *sagittaria sagittifolia*, their tawho or the roots of the *arum virginicum*, their taw-kee or *orontium aquaticum*, and whortleberries, were their chief food. They had no horses or other cattle which could be subservient to them in their agriculture, and therefore did all the work with their own hands. After they had reaped the maize, they kept it in holes under ground, during winter; they dug these holes seldom deeper than a fathom, and often not so deep; at the bottom and on the sides they put broad pieces of bark. The *andropogon bicornis*, a grass which grows in great plenty here, and which the English call Indian grass, and the Swedes wilkt grass*, supplies the want of bark; the ears of maize are then thrown into the hole, and covered to a considerable thickness with the same grass, and the

* Grass of the savages.

whole is again covered by a sufficient quantity of earth: the maize kept extremely well in those holes, and each Indian had several such subterraneous stores, where his corn lay safe, though he travelled far from it. After the Swedes had settled here, and planted apple-trees and peach-trees, the Indians, and especially their women, sometimes stole the fruit in great quantity; but when the Swedes caught them, they gave them a severe drubbing, took the fruit from them, and often their clothes too. In the same manner it happened sometimes, that as the Swedes had a great increase of hogs, and they ran about in the woods, the Indians killed some of them privately and feasted upon them; but there were likewise some Indians who bought hogs of the Swedes and fed them; they taught them to run after them like dogs, and whenever they removed from one place to another, their hogs always followed them. Some of those Indians got such numbers of these animals, that they afterwards gave them to the Swedes for a mere trifle. When the Swedes arrived in America the Indians had no domestic animals, except a species of little dogs. The Indians were extremely fond of milk, and ate it with pleasure when the Swedes gave it them. They likewise prepared a kind of liquor like milk in the following manner: they gathered a great number of hickory nuts, and walnuts from the black walnut-trees, dried and crushed them; then they took out the kernels, pounded them so fine as flour, and mixed this flour with water, which took a milky hue from them, and was as sweet as milk. They had tobacco-pipes of clay, manufactured by themselves, at the time that the Swedes arrived here; they did not always smoke true tobacco, but made use of another plant instead of it, which was unknown to the old Swedes, but of which he assured me that it was not the common mullein, or *verbascum thapsus*, which is generally called Indian tobacco here.

As to their religion, the old man thought it very trifling, and even believed that they had none at all; when they heard loud claps of thunder, they said that the evil spirit was angry; some of them said that they believed in a God, who lives in heaven. The old Swede once walked with an Indian, and they met with a red-spotted snake on the road: the old man therefore went to seek a stick in order to kill the snake; but the Indian begged he would not touch it, because he adored it: perhaps the Swede would not have killed it, but on hearing that it was the Indian's deity, he took a stick and killed it, in the presence of the Indian, saying: because thou believest in it, I think myself obliged to kill it. Sometimes the Indians came into the Swedish churches, looked at them, heard them, and went away again, after a while. One day as this old Swede was at church, and did not sing, because he had no psalm-book by him, one of the Indians, who was well acquainted with him, tapped him on the shoulder, and said: Why dost thou not sing with the others, Tantanta! Tantanta! Tantanta? On another occasion, as a sermon was preached in the Swedish church at Raccoon, an Indian came in, looked about him, and, after hearkening a while to the preacher, he said: Here is a great deal of prattle and nonsense, but neither brandy nor cyder; and went out again. For it is to be observed, that when an Indian makes a speech to his companions, in order to encourage them to war, or to any thing else, they all drink immoderately on those occasions.

At the time when the Swedes arrived, they bought land at a very inconsiderable price. For a piece of baize, or a pot full of brandy, or the like, they could get a piece of ground, which at present would be worth more than four hundred pounds, Pennsylvania currency. When they sold a piece of land, they commonly signed an agreement; and though they could neither read nor write, yet they scribbled their marks, or signatures, at the bottom of it. The father of old Nils Gustafson bought a

piece of ground from the Indians in New Jersey. As soon as the agreement was drawn up, and the Indians should sign it, one of them, whose name signified a beaver, drew a beaver; another of them drew a bow and arrow; and a third a mountain, instead of their names. Their canoes they made of thick trees, which they hollowed out by fire, and made them smooth again with their hatchets, as has been before mentioned.

The following account the old man gave me, in answer to my questions with regard to the weather and its changes: it was his opinion, that the weather had always been pretty uniform ever since his childhood: that there happen as great storms at present as formerly: that the summers now are sometimes hotter, sometimes colder, than they were at that time; that the winters were often as cold and as long as formerly; and that still there often falls as great a quantity of snow as in former times. However, he thought that no cold winter came up to that which happened in the year 1697; and which is often mentioned in the almanacks of this country; and I have mentioned it in the beginning of this volume. For in that winter the river Delaware was so strongly covered with ice, that the old man brought many waggons full of hay over it, near Christina; and that it was passable in sledges even lower. No cattle, as far as he could recollect, were starved to death in cold winters; except, in later years, such cattle as were lean, and had no stables to retire into. It commonly does not rain, neither more nor less, in summer than it did formerly; excepting that, during the last years, the summers have been more dry. Nor could the old Swede find a diminution of water in brooks, rivers, and swamps. He allowed, as a very common and certain fact, that wherever you dig wells you meet with oyster-shells in the ground.

The old Gustafson was of opinion that intermitting fevers were as frequent and violent formerly as they are now; but that they seemed more uncommon, because there were fewer people at that time here. When he got this fever he was not yet full grown. He got it in summer, and had it till the ensuing spring, which is almost a year; but it did not hinder him from doing his work, either within or out of doors. Pleurisy likewise attacked one or two of the Swedes formerly; but it was not near so common as it is now. The people in general were very healthy at that time.

Some years ago, the old Swede's eyes were so much weakened, that he was forced to make use of a pair of spectacles. He then got a fever; which was so violent that it was feared he would not recover. However, he became quite well again, and at the same time got new strength in his eyes, so that he has been able to read without spectacles since that time.

The houses which the Swedes built when they first settled here, were very bad. The whole house consisted of one little room, the door of which was so low, that one was obliged to stoop in order to get in. As they had brought no glass with them, they were obliged to be content with little holes, before which a moveable board was fastened. They found no moss, or at least none which could have been serviceable in stopping up holes or cracks in the walls. They were therefore forced to close them, both without and within, with clay. The chimneys were made in a corner, either of grey sand, a stone, or (in places where no stone was to be got) of mere clay, which they laid very thick in one corner of the house. The ovens for baking were likewise in the rooms.

Before the English came to settle here, the Swedes could not get as many cloaths as they wanted, and were therefore obliged to make shift as well as they could. The men wore waistcoats and breeches of skins. Hats were not in fashion; and they made little caps, provided with flaps before. They had worsted stockings. Their shoes were of their own making. Some of them had learnt to prepare leather, and to make com-

mon

mon shoes, with heels; but those who were not shoemakers by profession, took the length of their feet, and sewed the leather together accordingly; taking a piece for the sole, one for the hind-quarters, and one more for the upper-leather. At that time they likewise sowed flax here, and wove linen cloth. Hemp was not to be got; and they made use of flaxen ropes and fishing tackle. The women were dressed in jackets and petticoats of skins. Their beds, excepting the sheets, were skins of several animals; such as bears, wolves, &c.

Tea, coffee, and chocolate, which are at present universally in use here, were then* wholly unknown. Bread and butter, and other substantial food, was what they breakfasted upon; and the above-mentioned superfluities have only been lately introduced, according to the account of the old Swede. Sugar and treacle they had in abundance, as far as he could remember; and rum formerly bore a more moderate price.

From the accounts of this old Swede I concluded, that before the English settled here they followed wholly the customs of Old Sweden; but after the English had been in the country for some time, the Swedes began gradually to follow their customs. When this Swede was but a boy there were two Swedish smiths here, who made hatchets, knives, and scythes, exactly like the Swedish ones, and made them sharper than they can be got now. The hatchets now in use are in the English way, with a broad edge; and their handles are very narrow. Almost all the Swedes made use of baths; and they commonly bathed every Saturday. They celebrated Christmas with several sorts of games, and with several peculiar dishes, as is usual in Sweden; all which is now, for the greatest part, left off. In the younger years of this Swede they made a peculiar kind of carts here. They sawed thick pieces of liquidamber trees, and made use of two of them for the foremost wheels, and of two more for the hindmost. With those carts they brought home their wood. Their sledges were at that time made almost in the same manner as they are now, or about as broad again as the true Swedish ones. Timber and great beams of wood were carried upon a dray. They baked great loaves, such as they do now. They had never any biscuit, though the clergymen, who came from Sweden, commonly got some baked.

The English on their arrival here bought large tracts of land of the Swedes, at a very inconsiderable price. The father of the old Swede sold an estate to the English, which at this time would be reckoned worth three hundred pounds, for which he got a cow, a sow, and a hundred gourds.

With regard to the decrease of birds, the number of them and fish, he was wholly of that opinion which I have already mentioned. This was the account which the old man gave me of the former state of the Swedes in this country. I shall speak more particularly of it in the sequel.

Hurricanes are sometimes very violent here, and often tear up great trees. They sometimes proceed as it were in peculiar tracts, or lines. In some places, especially in the hurricane's tract, all the trees are struck down, and it looks as if the woods were cut down designedly; but close to the tract the trees receive no hurt. Such is the place which was shewn to me to-day. It is dangerous to go into the woods where the hurricanes blow; for no one can guard sufficiently against the sudden fall of trees.

The Pennsylvania asp was now in full blossom. But neither this tree, nor those near a-kin to it, shewed their leaves.

* Before the English settled here.

An old countryman asserted, that he commonly sowed a bushel of rye on an acre of ground, and got twenty bushels in return; but from a bushel of barley he got thirty bushels. However, in that case the ground must be well prepared. Wheat returns about as much as rye. The soil was a clay mixed with sand and mould.

In the evening I returned*.

March 28th. I found a black beetle † (*scarabæus*) with a pentagonal oval clypeus or shield, on the head a short blunt horn, and a gibbous or hump-backed thorax, or corselet. This beetle is one of the bigger sort here. I found here and there holes on the hills, which were so wide that I could put my finger into them. On digging them up I always found these beetles lying at the bottom, about five inches under ground. Sometimes there were short whitish worms, about as thick as one's finger, which lay with the beetles; and perhaps they were related to them. There were likewise other insects in such holes, as a black cricket (*gryllus campestris*), spiders, earth-beetles (*carabi*), and others. This beetle had a scent exactly like the *trifolium melilotus cærulea*, or the blue melilot. It was entirely covered with oblong pale ticks (*acari*). Its feet were as strong as those of the common dung chaffer (*scarabæus stercorarius*).

April 4th. A cicindela, or shining beetle, with a gold-green head, thorax, and feet, and a blue-green abdomen or belly, flew every where about the fields, and was hunting other insects. It is very common in North America, and seems to be a mere variety of the *cicindela campestris*.

Cimex lacustris, a kind of water-bugs, hopped in numbers on the surface of waters which had a slow course.

Dytiscus piceus, or, the great water-beetle, swam sometimes in the water.

About sixty years ago, the greatest part of this country was covered with tall and thick trees, and the swamps were full of water. But it has undergone so great a change, as few other places have undergone in so short a time. At present the forests are cut down in most places, the swamps drained by ditches, the country cultivated, and changed into corn-fields, meadows, and pastures. Therefore, it seems very reasonable to suppose, that so sudden a change has likewise had some effect upon the weather. I was therefore desirous of hearing from the old Swedes, who have lived the longest in this country, and have been inhabitants of this place during the whole time of the change mentioned, whether the present state of the weather was in some particulars remarkably different from that which they felt in their younger years? The following is an account which they all unanimously gave me in answer to this question.

The winter came sooner formerly than it does now. Mr. Isaac Norris, a wealthy merchant, who has a considerable share in the government of Pennsylvania, confirmed this by a particular account. His father, one of the first English merchants in this country, observed, that in his younger years the river Delaware was commonly covered with ice, about the middle of November, old style, so that the merchants were obliged to bring down their ships in great haste before that time, for fear of their being obliged to lie all winter. On the contrary, this river seldom freezes over at present, before the middle of December, old style.

* From Nils Gustafson, the old Swede.

† The beetle here described seems to be the *scarabæus Carolinus*, Linn. Syft. Nat. p. 545, and of Drury Illustrations of Nat. Hist. tab. 35. f. 2. It is common in New York, New Jersey, Pennsylvania, Maryland, and Carolina. F.

It snowed much more in winter, formerly, than it does now; but the weather in general was likewise more constant and uniform; and when the cold set in, it continued to the end of February, or till March, old style, when it commonly began to grow warm. At present, it is warm, even the very next day after a severe cold; and sometimes the weather changes several times a day.

Most of the old people here were of opinion, that spring came much later at present, than formerly, and that it was now much colder in the latter end of February, and the whole month of May, than when they were young. Formerly the fields were as green, and the air as warm, towards the end of February, as it is now in March, or in the beginning of April, old style. The Swedes at that time made use of this phrase: *pask bitida, pask sent, altid gras*, that is, we have always grass at Easter, whether it be soon or late in the year. But perhaps we can account as follows, for the opinion which the people here have, that vegetation appeared formerly more forward than it does now. Formerly the cattle were not so numerous as now; however, the woods were full of grass and herbs, which, according to the testimony of all the old people here, grew to the height of a man. At present a great part of the annual grasses and plants have been entirely extirpated by the continual grazing of numbers of cattle. These annual grasses were probably green very early in spring, and (being extirpated) might lead the people to believe, that every thing came on sooner formerly than it does at present.

It used to rain more abundantly than it does now; during the harvest especially, the rains fell in such plenty, that it was very difficult to bring home the hay and corn. Some of the last years had been extremely dry. However, a few people were of opinion that it rained as plentifully at present, as formerly.

All the people agreed, that the weather was not by far so inconstant, when they were young, as it is now. For at present it happens at all times of the year, that when a day has been warm, the next is very cold, and vice versa. It frequently happens that the weather alters several times in one day; so that when it has been a pretty warm morning, the wind blows from north west about ten o'clock, and brings a cold air with it; yet a little after noon it may be warm again. My meteorological observations sufficiently confirm the reality of these sudden changes of weather, which are said to cause, in a great measure, the people to be more unhealthy at present, than they were formerly.

I likewise found every body agree in asserting, that the winter, betwixt the autumn of the year 1697, and the spring of the year 1698, was the coldest and the severest which they had ever felt.

April 6th. *Sanguinaria Canadensis*, which is here called blood-root, because the root is great and red, and, when cut, looks like the root of red beet, and the *epigæa repens*, which some call the creeping ground-laurel, were both beginning to flower. The former grew in a rich mould, the other in a poorer soil.

The *Laurus æstivalis*, which some people call spice-wood, likewise began to blossom about this time; its leaves were not yet broke out; it liked a moist soil in the woods.

April 9th. *Apocynum Cannabinum* was by the Swedes called hemp of the Indians*; and grew plentifully in old corn-grounds, in woods, on hills, and in high glades. The Swedes have given it the name of Indian hemp, because the Indians formerly, and even now, apply it to the same purposes as the Europeans do hemp; for the stalk may

* *Willkt hampa.*

be divided into filaments, and is easily prepared. When the Indians were yet settled among the Swedes, in Pennsylvania and New Jersey, they made ropes of this apocynum, which the Swedes bought, and employed them as bridles, and for nets. These ropes were stronger, and kept longer in water, than such as were made of common hemp. The Swedes commonly got fourteen yards of these ropes for one piece of bread. Many of the Europeans still buy such ropes, because they last so well. The Indians likewise make several other stuffs of their hemp. On my journey through the country of the Iroquese, I saw the women employed in manufacturing this hemp. They made use neither of spinning-wheels nor distaffs, but rolled the filaments upon their bare thighs, and made thread and strings of them, which they dyed red, yellow, black, &c. and afterwards worked them into stuffs, with a great deal of ingenuity. The plant is perennial, which renders the annual planting of it altogether unnecessary. Out of the root and stalk of this plant, when it is fresh, comes a white milky juice, which is somewhat poisonous. Sometimes the fishing tackle of the Indians consists entirely of this hemp. The Europeans make no use of it, that I know of.

Flax and cat-tail, were names given to a plant which grows in bays, rivers, and in deep whirlpools, and which is known to botanists by the name of *Typha latifolia*. Its leaves are here twisted together, and formed into great oblong rings, which are put upon the horse's neck, between the mane and the collar, in order to prevent the horse's neck from being hurt by the collar. The bottoms of chairs were frequently made of these leaves, twisted together. Formerly the Swedes employed the wool or cotton which surrounds its seeds, and put it into their beds instead of feathers; but as it coalesces into lumps after the beds have been used for some time, they have left off making use of them. I omit the use of this plant in physic, it being the peculiar province of the physicians.

A species of leek*, very like that which appears only in woods on hills in Sweden, grows at present on almost all corn-fields mixed with sand. The English here called it garlick. On some fields it grew in great abundance. When the cattle grazed on such fields, and ate the garlick, their milk, and the butter which was made of it, tasted so strongly of it, that they were scarce eatable. Sometimes they sold butter in the Philadelphia markets, which tasted so strongly of garlick that it was entirely useless. On this account, they do not suffer milking cows to graze on fields where garlick abounds: this they reserve for other species of cattle. When the cattle eat much of this garlick in summer, their flesh has likewise such a strong flavour, that it is unfit for eating. This kind of garlick appears early in spring; and the horses always passed by it without ever touching it.

* *Allium arvense*; odore gravi, capitulis bulbosis rubentibus. See Gronov. *Flora Virginica*, 37. This leek seems to be Dr. Linnæus's *Allium Canadense*, scapo nudo tereti, foliis linearibus, capitulo bulbifero. *Spec. plant.* I. p. 431. F.

PETER KALM'S TRAVELS.

VOLUME THE SECOND.

PREFACE OF THE EDITOR TO THE SECOND VOLUME.

I COULD have left this volume without preface, was it not for some circumstances which I am going to mention.

The author of this account of North America is a Swede, and therefore seems always to shew a peculiar way of thinking in regard to the English in general, and in regard to the first proprietors and inhabitants of Philadelphia in particular. The French, the natural enemies of the English, have, for upwards of a century, been the allies of the Swedes, who therefore are in general more fond of them than of the English. The external politeness of the French in Canada fully captivated our author, prejudiced him in their favour, and alienated his mind, though unjustly, from the English. I have therefore now and then, in remarks, been obliged to do the English justice, especially when I saw the author carried away either by prejudice or misinformation. He passed almost all the winter, between 1748 and 1749, at Raccoon, and conversed there with his countrymen; when he came to Philadelphia he likewise was in the company of the Swedes settled there; these, no doubt, furnished him with many partial and disingenuous accounts of the English, and gave his mind that unfavourable bias which he so often displays in prejudice of a nation, now at the head of the enlightened world, in regard to every religious, moral, and social virtue. The author frequently seems to throw an illiberal reflection on the first proprietors of Pennsylvania, and the Quakers; though they got that province not by force, but by a charter from the English government, to whom the Swedes gave it up by virtue of a public treaty. Prompted by such false insinuations of his countrymen, he likewise enters very minutely into the circumstances of the Swedes, and often omits more important points relative to the legislator and father of Pennsylvania, William Penn, who gave that province existence, laws, and reputation.

The author, however, often does justice to the excellent constitution of Pennsylvania, as may be seen in vol. 1. But when he speaks of stones attracting the moisture of the air, see vol. 1. this is somewhat unphilosophically expressed. No stone attracts the moisture of the air unless impregnated with saline particles; however, when the stones are colder than the atmosphere, they then condense the moisture of the air on their surface: the porous stones absorb it immediately, but those of a more solid texture, as marbles, &c. keep it on their surface till it evaporates.

I here take the opportunity of returning my humble thanks to my friends, who have generously promoted this publication; as without this public manner of acknowledging their favours, I would think myself guilty of ingratitude, which, in my opinion, is one of the most detestable vices.

London,
Feb. the 15th, 1771.

PETER KALM'S TRAVELS.—VOLUME THE SECOND.

APRIL the 12th, 1749. This morning I went to Philadelphia and the places adjacent, in order to know whether there were more plants lately sprung up than at Raccoon, and in New Jersey in general. The wet weather which had happened the preceding days had made the roads very bad in low and clayey places.

The leaves which dropt last autumn had covered the ground in depth three or four inches. As this seems to hinder the growth of the grafs, it was customary to burn it in March, or at the end of that month, (according to the old stile) in order to give the grafs the liberty of growing up. I found several spots burnt in this manner to-day; but if it be useful one way, it does a great deal of damage in another; all the young shoots of several trees were burnt with the dead leaves, which diminishes the woods considerably; and in such places where the dead leaves had been burnt for several years together, the old trees were only left, which being cut down, there remains nothing but a great field, without any wood. At the sametime, all sorts of trees and plants are consumed by the fire, or at least deprived of their power of budding; a great number of plants, and most of the grafses here, are annual; their seeds fall between the leaves, and by that means are burnt: this is another cause of universal complaint, that grafs is much scarcer at present in the woods than it was formerly; a great number of dry and hollow trees are burnt at the same time, though they could serve as fuel in the houses, and by that means spare part of the forests. The upper mould likewise burns away in part by that means, not to mention several other inconveniencies with which this burning of the dead leaves is attended. To this purpose, the government of Pennsylvania have lately published an edict, which prohibits this burning; nevertheless every one did as he pleased, and this prohibition met with a general censure.

There were vast numbers of woodlice in the woods about this time; they are a very disagreeable insect; for as soon as a person sits down on an old stump of a tree, or on a tree which is cut down, or on the ground itself, a whole army of woodlice creep upon his clothes, and insensibly come upon the naked body.

I had a piece of petrified wood given me to-day, which was found deep in the ground at Raccoon. In this wood the fibres and inward rings appeared very plainly; it seemed to be a piece of hiccory, for it was as like it, in every respect, as if it had but just been cut from a hiccory tree.

I likewise got some shells to-day, which the English commonly call clams, and whereof the Indians make their ornaments and money, which I shall take an opportunity of speaking of in the sequel. These clams were not fresh, but such as are every where found in New Jersey, on digging deep into the ground; the live shells of this kind are only found in salt water, and on the sea coasts. But these clams were found at Raccoon, about eight or nine English miles from the river Delaware, and near a hundred from the nearest sea-shore.

At night I went to Mr. Bartram's seat.

April 13th. I employed this day in several observations relative to botany.

Two nests of wasps hung in a high maple-tree, over a brook. Their form was wholly the same with that of our wasp nests, but they exceeded them in size. Each

nest was ten inches in diameter; in each nest were three cakes, above one another, of which the lowermost was the biggest, and the two uppermost decreased in proportion: there were some eggs of wasps in them. The diameter of the lowest cake was about six inches and one quarter, and that of the uppermost, three inches and three quarters. The cells in which the eggs, or the young ones were deposited, were hexagonal, and the colour of the nest grey. I was told that the wasps make this kind of nests out of the grey splints, which stick to old pales and walls. A dark brown bee, with black antennæ, and two black rings on the belly, and purple wings, flew about the trees, and might perhaps be an inhabitant of these nests.

Another kind of wasps, which are larger than these, make their nests quite open. It consists merely of one cake, which has no covering, and is made of the boughs of trees. The cells are horizontal, and when the eggs or young larvæ lie in them they have lids or coverings, that the rain may not come into them. But whither the old wasps retreat during storms, is a mystery to me, except they creep into the crevices of rocks. That side of the cake which is uppermost is covered with some oily particles, so that the rain cannot penetrate. The cells are hexagonal, from five to seven lines deep, and two lines in diameter. Mr. Bartram observed, that these nests are built of two sorts of materials, viz. the splints which are found upon old pales, or fences, and which the wind separates from them; for the wasps have often been observed to sit on such old wood, and to gnaw away these splints; the sides, and the lid or cover of the cells are made of an animal substance, or glutinous matter, thrown up by the wasps, or prepared in their mouths; for when this substance is thrown into the fire, it does not burn, but is only singed, like hair or horn. But the bottom of the nest being put into the fire, burns like linen or half-rotten wood, and leaves a smell of burnt wood. The wasps, whose nests I have now described, have three elevated black shining points on the forehead*, and a pentagonal black spot on the thorax. Towards the end of autumn these wasps creep into the cavities of mountains, where they lie torpid during winter. In spring, when the sun begins to operate, they come out during day-time, but return towards night, when it grows cold. I saw them early in spring during sunshine, in and about some cavities in the mountains. I was told of another species of wasps, which make their nests under ground.

Gyrinus natator (Americanus), or the whirl-beetles. These were found dancing in great numbers on the surface of the waters.

April 14th. This morning I went down to Chester: in several places on the road are saw-mills; but those which I saw to-day had no more than one saw. I likewise perceived that the woods and forests of these parts had been very roughly treated. It is customary here, when they erect saw-mills, wind-mills, or iron-works, to lead the water a good way lower, in case the ground near a fall in the river is not convenient for building upon.

April 16th. This morning I returned to Raccoon. This country has several kinds of swallows, viz. such as live in barns, in chimneys, and under ground; there are likewise martens.

The barn swallows, or house swallows, are those with a furcated tail. They are Linnæus's *hirundo rustica*. I found them in all the parts of North America which I travelled over. They correspond very nearly to the European house-swallow. In regard to

* These three points are common to most insects, and ought therefore not to be made characteristics of any particular species. They are called stemmata, and are a kind of eyes which serve the insects for looking at distant objects, as the compound eyes do for objects near at hand. F.

their colour, however, there seems to be a small difference in the note. I took no notice this year when they arrived: but the following year, 1750, I observed them for the first time, on the 10th of April (new style); the next day in the morning, I saw great numbers of them sitting on posts and planks, and they were as wet as if they had been just come out of the sea*. They build their nests in houses, and under the roofs on

* It has been a subject of contest among naturalists, to determine the winter retreat of swallows. Some think, they go to warmer climates when they disappear in the northern countries: others say, they creep into hollow trees, and holes in clefts of rocks, and lie there all the winter in a torpid state: and others affirm, that they take their retreat into water, and revive again in spring. The two first opinions have been proved, and it seems have found credit; the last have been treated as ridiculous, and almost as an old woman's tale. Natural history, as all the other histories, depends not always upon the intrinsic degree of probability, but upon facts founded on the testimony of people of noted veracity. — Swallows are seldom seen sinking down into the water; swallows have not such organs as frogs or lizards, which are torpid during winter, ergo, swallows live not, and cannot live under water. — This way of arguing, I believe, would carry us, in a great many cases, too far; for though it is not clear to every one, it may however be true; and lizards and frogs are animals of a class widely different from that of birds, and must therefore of course have a different structure; hence it is they are classed separately. The bear and the marmot are in winter in a torpid state, and have however not such organs as lizards and frogs; and nobody doubts of their being, during some time, in the most rigid climates, in a torpid state; for the Alpine nations hunt the marmots frequently, by digging their holes up, and find them so torpid, that they cut their throats, without their reviving or giving the least sign of life during the operation; but when the torpid marmot is brought into a warm room and placed before the fire, it revives from its lethargy. The question must therefore be decided by facts; nor are they wanting here; Dr. Wallerius, the celebrated Swedish chemist, wrote in 1748, September the 6th, O. S. to the late Mr. Klein, secretary to the city of Dantzick: "That he has seen, more than once, swallows assembling on a reed, till they were all immersed and went to the bottom; this being preceded by a dirge of a quarter of an hour's length. He attests likewise, that he had seen a swallow caught during winter out of a lake with a net, drawn, as is common in northern countries, under the ice: this bird was brought into a warm room, revived, fluttered about, and soon after died."

Mr. Klein applied to many fermiers généraux of the King of Prussia's domains, who had great lakes in their districts, the fishery in them being a part of the revenue; in winter the fishery thereon is the most considerable under the ice, with nets spreading more than two hundred or three hundred fathoms, and they are often wound by screws and engines, on account of their weight. All the people questioned made affidavits upon oath before the magistrates. First, The mother of the Countess Lehndorf said, that she had seen a bundle of swallows brought from the Frish-haff (a lake communicating with the Baltic at Pillau) which when brought into a moderately warm room, revived and fluttered about. Secondly, Count Schlieben gave an instrument on stamped paper, importing, that by fishing on the lake belonging to his estate of Gerdauen, in winter, he saw several swallows caught in the net, one of which he took up with his hand, brought it into a warm room, where it lay about an hour, when it began to stir, and half an hour after it flew about in the room. Thirdly, fermier general (Amtman) Witkowski made affidavit, that in the year 1740, three swallows were brought up with the net in the great pond at Didlacken; in the year 1741 he got two swallows from another part of the pond, and took them home, (they all being caught in his presence); after an hour's space they revived all in a warm room, fluttered about, and died three hours after. Fourthly, Amtman Bönke says, that having had the estate Kleskow in farm, he had seen nine swallows brought up in the net from under the ice, all which he took into a warm room, where he distinctly observed how they gradually revived; but a few hours after they all died. Another time his people got likewise some swallows in a net, but he ordered them again to be thrown into the water. Fifthly, Andrew Rutta, a master fisherman, at Oletsko, made affidavit, 1747, that twenty-two years ago, two swallows were taken up by him, in a net, under the ice, and being brought into a warm room, they flew about. Sixthly, Jacob Kosiulo, a master fisherman, at Stradauen, made affidavit, that in 1736, he brought up in winter, in a net, from under the ice of the lake at Raski, a seemingly dead swallow, which revived in half an hour's time, in a warm room, and he saw, a quarter of an hour after, the bird grow weaker, and soon after dying. Seventhly, I can reckon myself among the eye-witnesses of this paradoxon of natural history. In the year 1735, being a little boy, I saw several swallows brought in winter by fishermen, from the river Vistula, to my father's house, where two of them were brought into a warm room, revived, and flew about. I saw them several times settling on the warm stove, (which the northern nations have in their rooms) and I recollect well that the same forenoon they died, and I had them, when dead, in my hand.

on the outside ; I likewise found their nests built on mountains and rocks whose top projected beyond the bottom ; they build too under the corners of perpendicular rocks ; and this shews where the swallows made their nests, before the Europeans settled and built houses here ; for it is well known that the huts of the Indians could not serve the purpose of the swallows. A very creditable lady and her children told me the following story, assuring me that they were eye-witnesses to it : a couple of swallows built their nest in the stable belonging to the lady ; the female swallow sat upon the nest, laid eggs in it, and was about to brood them ; some days after, the people saw the female still sitting on the eggs ; but the male flying about the nest, and sometimes settling on a nail, was heard to utter a very plaintive note, which betrayed his uneasiness : on a nearer examination the cause appeared, for the female was found dead in the nest. The male then went to sit upon the eggs, but after being about two hours on them, and thinking the business too troublesome for him, he went out, and returned in the afternoon with another female, which sat upon the eggs, and afterwards fed the young ones

In the year 1754, after the death of my uncle Godefroy Wolf, captain in the Polish regiment of foot-guards ; being myself one of his heirs, I administered for my co-heirs several estates called the Starosty of Dirschau, in Polish Prussia, which my late uncle farmed under the King. In January the lake of Lybshau, belonging to these estates being covered with ice, I ordered the fishermen to fish therein, and in my presence several swallows were taken, which the fishermen threw in again ; but one I took up myself, brought it home, which was five miles from thence, and it revived, but died about an hour after its reviving. These are facts attested by people of the highest quality, by some in public offices, and by others, who, though of a low rank, however made these affidavits upon oath. It is impossible to suppose indiscriminately that they were prompted by views of interest, to assert as a fact, a thing which had no truth in it. It is therefore highly probable, or rather incontestably true, that swallows retire in the Northern countries during winter into the water, and stay there in a torpid state, till the return or warmth revives them again in spring. The question therefore I believe ought for the future to be thus stated : The swallows in Spain, Italy, France, and perhaps some from England, remove to warmer climates ; some English ones, and some in Germany and other mild countries, retire into clefts and holes in rocks, and remain there in a torpid state. In the colder northern countries the swallows immerse in the sea, in lakes and rivers, and remain in a torpid state under ice during winter. There are still some objections to this latter assertion, which we must remove. It is said, why do not rapacious fish, and aquatic quadrupeds and birds, devour these swallows ? The answer is obvious. Swallows chuse only such places in the water for their winter retreat, as are near reeds and rushes, so that sinking down there between them and their roots, they are by them secured against the rapaciousness of their enemies. But others object, why are not these birds caught in such waters as are continually harrassed by nets ? I believe the same answer which has been made to the first objection, will serve for this likewise. Fishermen take care to keep off with their nets from places filled with reeds and rushes, for fear of entangling and tearing their nets ; and thus the situation of swallows under water, is the reason that they are seldom disturbed in their silent winter retreats. What confirms this opinion still more is, that swallows were never caught in Prussia, according to the above-mentioned affidavits, but with those parts of the net which passed near to the reeds and rushes ; and sometimes the swallows were yet fastened with their feet to a reed when they were drawn up by the net. As to the argument taken from their being so long under water without corruption, I believe there is a real difference between animals suffocated in water, and animals being torpid therein. We have examples of things being a long time under water, to which we may add the intense cold of these northern regions which preserves them. Who would have thought it, that snails and polypes may be dissected, and could reproduce the parts severed from their body, if it was not a fact ? Natural history ought to be studied as a collection of facts, not as the history of our guesses or opinions. Nature varies in an infinite manner ; and Providence has diversified the instinct of animals, and their œconomy, and adapted it to the various seasons and climates. This long digression I thought necessary and excusable ; and the more so, as the ingenious great friends to the cause of Natural History, the late Mr. Collinson and Mr. Pennant, have both asserted the impossibility and improbability of this immersion. I revere the memory and the ashes of the one, and think the friendship of the other an honour to me ; but am assured, that both prefer truth to their private opinion, and can bear a modest opposition, when it is proposed with candour, with a view to promote truth, and with sentiments of respect and gratitude, as it is done by me in the present case. F.

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till they were able to provide for themselves. The people differed here in their opinions about the abode of swallows in winter: most of the Swedes thought that they lay at the bottom of the sea; some, with the English and the French in Canada, thought that they migrate to the southward in Autumn, and return in spring. I have likewise been credibly informed in Albany, that they have been found sleeping in deep holes and clefts of rocks, during winter.

The chimney swallows are the second species, and they derive their name from building their nests in chimneys, which are not made use of in summer: sometimes when the fire is not very great, they do not mind the smoke, and remain in the chimney. I did not see them this year till late in May, but in the ensuing year, 1750, they arrived on the 3d of May, for they appear much later than the other swallows. It is remarkable that each feather in their tail ends in a stiff sharp point, like the end of an awl; they apply the tail to the side of the wall in the chimneys, hold themselves with their feet, and the stiff tail serves to keep them up: they make a great thundering noise all the day long, by flying up and down in the chimneys; and as they build their nests in chimneys only, and it is well known that the Indians have not so much as a hearth made of masonry, much less a chimney, but make their fires on the ground in their huts, it is an obvious question, Where did these swallows build their nests before the Europeans came, and made houses with chimneys? It is probable that they formerly made them in great hollow trees. This opinion was adopted by Mr. Bartram, and many others here. Catesby has described the chimney swallow and figured it*, and Dr. Linnæus calls it *hirundo pelagica*.

The ground swallows or sand martins, (Linnæus's *hirundo riparia*) are to be met with every where in America; they make their nests in the ground on the steep shores of rivers and lakes.

The purple martins have likewise been described and drawn in their natural colours by Catesby†. Dr. Linnæus likewise calls them *hirundo purpurea*. They are less common here than the former species; I have seen in several places little houses made of boards, and fixed on the outside of the walls, on purpose that these martins may make their nests in them; for the people are very desirous of having them near their houses, because they both drive away hawks and crows as soon as they see them, and alarm the poultry, by their anxious note, of the approach of their enemies. The chickens are likewise used to run under shelter, as soon as they are warned by the martins.

April 17th. The *dirca palustris*, or mouse-wood, is a little shrub which grows on the rising ground adjoining to the swamps and marshes, and was now in full blossom. The English in Albany, call it leather-wood, because its bark is as tough as leather. The French in Canada, call it *bois de plomb*, or leaden-wood, because the wood itself is as soft and as tough as lead. The bark of this shrub was made use of for ropes, baskets, &c. by the Indians, whilst they lived among the Swedes; and it is really very fit for that purpose, on account of its remarkable strength and toughness, which is equal to that of the lime-tree bark. The English and the Dutch in many parts of North America, and the French in Canada, employ this bark in all cases where we make use of lime-tree bark in Europe. The tree itself is very tough, and you cannot easily separate its branches without the help of a knife: some people employ the twigs for rods.

* *Hirundo, caudâ aculeatâ, Americana.* Catesb. Carol. vol. iii. t. 8.

† *Hirundo purpurea.* Nat. Hist. of Carol. vol. i. t. 51.

April 20th. This day I found the strawberries in flower, for the first time this year: the fruit is commonly larger than that in Sweden; but it seems to be less sweet and agreeable.

The annual harvest, I am told, is always of such a nature, that it affords plenty of bread for the inhabitants, though it turns out to greater advantage in some years than it does in others. A venerable septuagenary Swede, called Aoke Helm, assured me, that in his time no absolutely barren crop had been met with, but that the people had always had pretty plentiful crops. It is likewise to be observed, that the people eat their bread of maize, rye, or wheat, quite pure and free from the inferior kinds of corn, and clear of husks, stalks, or other impurities. Many aged Swedes and Englishmen confirmed this account, and said, that they could not remember any crop so bad as to make the people suffer in the least, much less that any body was starved to death, whilst they were in America. Sometimes the price of corn rose higher in one year than in another, on account of a great drought or bad weather, but still there was always corn sufficient for the consumption of the inhabitants. Nor is it likely that any great famine can happen in this country, unless it please God to afflict it with extraordinary punishments. The weather is well known, from more than sixty years experience. Here are no cold nights which hurt the germ; the wet is of short continuance, and the drought is seldom or never of long duration; but the chief thing is the great variety of corn. The people sow the different kinds at different times and seasons, and though one crop turn out bad, yet another succeeds. The summer is so long, that of some species of corn they may get three crops. There is hardly a month from May to October or November inclusive, in which the people do not reap some kind of corn, or gather some sort of fruit. It would indeed be a very great misfortune if a bad crop should happen; for here, as in many other places, they lay up no stores, and are contented that there is plenty of food for the present exigencies.

The peach-trees were now every where in blossom; their leaves were not yet come out of the buds, and therefore the flowers shewed to greater advantage; their beautiful pale red colour had a very fine effect; and they sat so close that the branches were entirely clad with them. The other fruit trees were not yet in flower; however, the apple blossoms began to appear.

The English and the Swedes of America, give the name of currants* to a shrub which grows in wet ground, and near swamps, and which was now in blossom; its flowers are white, have a very agreeable fragency, and grow in oblong bunches; the fruit is very good eating, when it is ripe; the style (stylus) is thread-shaped (filiformis), and shorter than the stamina; it is divided in the middle, into five parts, or stigmata. Dr. Linnæus calls it *cratægus* †, and Dr. Gronovius calls it a *mespilus* ‡.

April 22d. The Swedes give the name of whipperiwill, and the English that of whip-poor-will, to a kind of nocturnal bird, whose voice is heard in North America, almost throughout the whole night. Catesby and Edwards both have described and figured it §. Dr. Linnæus calls it a variety of the *caprimulgus Europæus*, or goat-sucker: its shape, colour, size, and other qualities make it difficult to distinguish them from each other; but the peculiar note of the American one distinguishes it from the European

* It must be carefully distinguished from what is called currants in England, which is the *ribes rubrum*. F.

† *Cratægus tomentosa*, Linn. Spec. pl. p. 682.

‡ *Mespilus inermis*, foliis ovato-oblongis, serratis, subtus tomentosis. Gronov. Fl. Virgin. 55.

§ *Caprimulgus minor Americanus*. Catesb. Nat. Hist. of Carolina, vol. iii. t. 16. Edwards's Nat. Hist. of Birds, t. 63.

one, and from all other birds : it is not found here during winter, but returns with the beginning of summer. I heard it to-day, for the first time, and many other people said, that they had not heard it before this summer ; its English and Swedish name is taken from its note ; but, accurately speaking, it does not call whipperiwill, nor whip-poor-will, but rather whipperiwip, so that the first and last syllables are accented, and the intermediate ones but slightly pronounced. The English change the call of this bird into whip-poor-will, that it may have some kind of signification : it is neither heard nor seen in day-time ; but soon after sun-set it begins to call, and continues for a good while, as the cuckoo does in Europe. After it has continued calling in a place for some time, it removes to another, and begins again : it usually comes several times in a night, and settles close to the houses ; I have seen it coming late in the evening, and settling on the steps of the house in order to sing its song ; it is very shy, and when a person stood still, it would settle close by him, and begin to call. It came to the houses in order to get its food, which consists of insects ; and those always abound near the houses at night ; when it sat and called its whipperiwhip, and saw an insect passing, it flew up and caught it, and settled again. Sometimes you hear four or five, or more, near each other, calling as it were for a wager, and raising a great noise in the woods. They were seldom heard in towns, being either extirpated there, or frightened away, by frequent shooting. They do not like to sit on trees, but are commonly on the ground, or very low in bushes, or on the lower poles of the enclosures ; they always fly near the ground ; they continue their calling at night till it grows quite dark ; they are silent till the dawn of day comes on, and then they call till the sun rises. The sun seems to stop their mouths, or dazzle their eyes, so as to make them sit still. I have never heard them call in the midst of night, though I have hearkened very attentively on purpose to hear it, and many others have done the same. I am told they make no nest, but lay two eggs in the open fields. My servant shot at one which sat on a bush near the house, and though he did not hit it, yet it fell down through fear, and lay for some time as if dead, but recovered afterwards. It never attempted to bite when it was held in the hands, only endeavouring to get loose by stirring itself about. Above, and close under the eyes, were several black, long, and stiff bristles, as in other nocturnal birds. The Europeans eat it. Mr. Catesby says, the Indians affirm, that they never saw these birds, or heard of them, before a certain great battle, in which the Europeans killed a great number of Indians. Therefore, they suppose that these birds, which are restless, and utter their plaintive note at night, are the souls of their ancestors who died in battle.

April 24th. To-day the cherry-trees began to show their blossoms ; they had already pretty large leaves.

The apple-trees likewise began to blossom ; however, the cherry-trees were more forward : they likewise got a greenish hue from their leaves.

The mulberry-trees * were yet quite naked ; and I was sorry to find that this tree is one of the latest in getting leaves, and one of the first which gets fruit.

April 26th. This morning I travelled to Penn's Neck. The tulip-trees, especially the tall ones, looked quite green, being covered with their leaves ; this tree is therefore one of the earliest which get leaves.

To-day I saw the flowers of the sassafras-tree, (*laurus sassafras*.) The leaves were not yet come out. The flowers have a fine smell.

The lupinus perennis is abundant in the woods, and grows equally in good soil and

* *Morus rubra*.

in poor. I often found it thriving on very poor sandy fields, and on heaths, where on other plants will grow. Its flowers, which commonly appear in the middle of May, make a fine shew by their purple hue. I was told, that the cattle eat these flowers very greedily; but I was sorry to find very often that they were not so fond of it as it is represented, especially when they had any thing else to eat; and they seldom touched it, notwithstanding its fine green colour, and its softness: the horses eat the flowers, but leave the stalks and leaves. If the cattle eat this plant in spring, necessity and hunger give it a relish. This country does not afford any green pastures like the Swedish ones; the woods are the places where the cattle must collect their food. The ground in the woods is chiefly flat, or with very little risings. The trees stand far asunder; but the ground between them is not covered with green sods; for there are but few kinds of grasses in the woods, and they stand single and scattered. The soil is very loose, partly owing to the dead leaves which cover the ground during a great part of the year. Thus the cattle find very little grass in the woods, and are forced to be satisfied with all kinds of plants which come in their way, whether they be good or bad food. I saw for some time this spring, that the cattle bit off the tops and shoots of young trees, and fed upon them; for no plants were yet come up, and they stand in general but very thin, and scattered here and there, as I have just mentioned. Hence you may easily imagine that hunger compels the cattle to eat plants, which they would not touch were they better provided for. However, I am of opinion, that it would be worth while to make use of this lupine to mend dry sandy heaths, and, I believe, it would not be absolutely impossible to find out the means of making it agreeable to the cattle.

The oaks here have similar qualities with the European ones. They keep their dead leaves almost during the whole winter, and are very backward in getting fresh ones; they had no leaves as yet, and were but just beginning to shew a few.

The humming-bird, which the Swedes call king's-bird*, and which I have mentioned in a former volume, appeared hereabouts to-day, for the first time this spring.

Numbers of oil beetles, (*Meloe Proscarabæus*) sat on the leaves of white hellebore (*Veratrum album*) and feasted on them. I considered them a great while, and they devoured a leaf in a few minutes. Some of them had already eaten so much that they could hardly creep. Thus this plant, which is almost certain death to other animals, is their dainty food.

The fire-flies appeared at night, for the first time this year, and flew about between the trees, in the woods. It seemed, in the dark, as if sparks of fire flew up and down. I will give a more particular account of them in another place.

Towards night I went to Raccoon.

May 1st. The last night was so cold, that the ground at sun-rising was as white as snow, from the hoary-frost. The Swedish thermometer was a degree and a half below the freezing point. We observed no ice in the rivers or waters of any depth; but upon such only as were about three inches deep, the ice lay to the thickness of one third part of a line †. The evening before, the wind was south, but the night was calm. The apple-trees and cherry-trees were in full blossom. The peach-trees were almost out of flower. Most of the forest-trees had already got new and tender leaves, and most of them were in flower, as almost all kinds of oaks, the dog-wood, (*Cornus Florida*), hiccory, wild prunes, saffrafras, horn-beam, beeches, &c.

The plants which were found damaged by the frost, were the following. 1. The hiccory. Most of the young trees of this kind had their leaves killed by the frost, so

* Kungsfogel.

† The tenth part of an inch.

that they looked quite black in the afternoon ; the leaves were consumed by frost every where in the fields, near the marshes, and in the woods. 2. The black oak. Several of these trees had their leaves damaged by the frost. 3. The white oak. Some very young trees of this kind had lost their leaves by the frost. 4. The blossoms of the cherry trees were hurt in several places. 5. The flowers of the English walnut-tree were entirely spoiled by the frost. 6. The *rhus glabra*. Some of these trees had already got leaves, and they were killed by the cold. 7. The *rhus radicans* ; the tender young trees of this kind suffered from the frost, and had their leaves partly killed. 8. The *thalictra*, or meadow rue, had both their flowers and leaves hurt by the frost. 9. The *podophyllum peltatum*. Of this plant there was not above one in five hundred hurt by the frost. 10. The ferns. A number of them, which were lately come up, were destroyed. I must add several plants which were likewise hurt, but which I could not distinguish, on account of their smallness.

I went to several places this day.

The *bartfia coccinea* grew in great abundance on several low meadows. Its flower-buds were already tinged with their precious scarlet, and adorned the meadows. It is not yet applied to any use, but that of delighting the sight.

One of the Swedes here had planted an English walnut-tree (*Juglans regia*) in his garden, and it was now about three yards high ; it was in full blossom, and had already great leaves, whereas the black walnut-trees, which grow spontaneously in every part of this country, had not yet any leaves, or flowers. The last night's frost had killed all the leaves of the European kind. Dr. Franklin told me afterwards, that there had been some English walnut-trees in Philadelphia, which came on very well ; but that they were killed by the frost.

I looked about me for the trees which had not yet got fresh leaves, and I found the following ones :

Juglans nigra, or the black walnut-tree.

Fraxinus excelsior, or the ash.

Acer Negundo, called the white ash here.

Nyssa aquatica, the tupelo-tree.

Diospyros Virginiana, or the persimmon.

Vitis labrusca, or the fox-grapes ; and

Rhus glabra, or the sumach.

The trees whose leaves were coming out, were the following :

Morus rubra, the mulberry-tree.

Fagus Castanea, the chestnut-tree.

Platanus occidentalis, or the water-beech.

Laurus sassafras, the sassafras-tree.

Juglans alba, the hickory. Some trees of this kind had already large leaves, but others had none at all ; the same difference, I believe, exists likewise among the other species of hickory.

The Virginian cherry-tree grows here and there, in the woods and glades : its leaves were already pretty large ; but the flowers were not yet entirely open.

The sassafras-tree was now every where in flower ; but its leaves were not yet quite disclosed.

The *Liquidambar styraciflua* or sweet gum-tree, grows in the woods, especially in wet soil, in and near purling rivulets : its leaves were now already sprouting out at its summit. This tree grows to a great thickness, and its height rivals that of the tallest firs and oaks ; as it grows higher, the lower branches die and drop, and leave the stem

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at last quite smooth and strait, with a great crown at the very summit; the seeds are contained in round, dentated cones, which drop in autumn; and as the tree is very tall, so the high winds carry the seeds away to a great distance. I have already given an account of the use of this tree in the first volume, to which I must add the following account.

The wood can be made very smooth, because its veins are extremely fine: but it is not hard; you can carve letters on it with a knife, which will seem to be engraved. Mr. Lewis Evans told me, from his own experience, that no wood in this country was more fit for making moulds for casting brads in, than this. I enquired of Mr. Bartram, "Whether he had found the rosin on this tree, which is so much praised in physic?" He told me, "That a very odoriferous rosin always flows out of any cut or wound, which is made in the tree; but that the quantity here was too inconsiderable to recompense the labour of collecting it." This odoriferous rosin or gum first gave rise to the English name. The further you go to the south, the greater quantity of gum does the tree yield, so that it is easy to collect it. Mr. Bartram was of opinion, that this tree was properly calculated for the climate of Carolina, and that it was brought by several ways so far north as New York. In the southern countries the heat of the sun fills the tree with gum, but in the northern ones it does not.

May 2nd. This morning I travelled down to Salem, in order to see the country.

The sassafras-tree stood single in the woods, and along the fences, round the fields: it was now distinguishable at a distance for its fine flowers, which being now quite open, made it look quite yellow. The leaves were not yet come out.

In some meadows the grass was already grown up pretty high: but it is to be observed, that these meadows were marshy, and that no cattle had been on them this year. These meadows are mown twice a year, viz. in May, and the end of August, or beginning of September, old style. I saw some meadows of this kind to-day, in which I saw grass which was now almost fit to be mown; and many meadows in Sweden have not such grass at the proper time of mowing, as these had now; these meadows lay in marshes and vallies, where the sun had very great power: the grass consisted merely of cyprus-grass or carex. The wild prune-trees were now every where in flower; they grow here and there in the woods, but commonly near marshes and in wet ground: they are distinguishable by their white flowers: the fruit when ripe is eatable.

The cornus florida, or dogwood, grows in the forests, on hills, on plains, in vallies, in marshes, and near rivulets. I cannot therefore say which is its native soil; however, it seems that in a low but not a wet soil it succeeds best; it was now adorned with its great snowy involucra, which render it conspicuous even at a distance. At this time it is a pleasure to travel through the woods, so much are they beautified by the blossoms of this tree. The flowers which are within the involucra began to open to-day. The tree does not grow to any considerable height or thickness, but is about the size of our mountain ash (*Sorbus aucuparia*). There are three species of this tree in the woods; one with great white involucra, another with small white ones, and a third with reddish ones.

The woods were now full of birds: I saw the lesser species every where hopping on the ground, or creeping in bushes, without any great degree of shyness; it is therefore very easy for all kind of snakes to approach and bite them. I believe that the rattlesnake has nothing to do but to lie still, and without waiting long, some little bird or other will pass by or run directly upon her, giving her an opportunity of catching it, without any enchantment.

Salem is a little trading town, situated at some distance from the river Delaware. The houses do not stand far asunder, and are partly stone, and partly wood. A rivulet passes by the town, and falls into the Delaware. The inhabitants live by their several trades as well as they can. In the neighbourhood of Salem are some very low and swampy meadows; and therefore it is reckoned a very unwholesome place. Experience has shewn, that those who came hither from other places to settle, got a very pale and sickly look, though they arrived in perfect health, and with a very lively colour. The town is very easily distinguished about this time, by the disagreeable stench which arises from the swamps. The vapours of the putrid water are carried to those inhabitants which live next to the marshes; and enter the body along with the air, and through the pores, and thus are hurtful to health. At the end of every summer, the intermitting fevers are very frequent. I knew a young couple, who came along with me from England to America: soon after their arrival at Philadelphia, they went to Salem, in perfect health; but a few weeks after they fell sick, and before the winter was half over they were both dead.

Many of the inhabitants plant saffron; but it is not so good and so strong as the English and French saffron. Perhaps it grows better by being laid up for some years, as tobacco does.

The *gossypium herbaceum*, or cotton plant, is an annual plant; and several of the inhabitants of Salem had begun to sow it. Some had the seeds from Carolina, where they have great plantations of cotton; but others got it out of some cotton which they had bought. They said, it was difficult at first to get ripe seeds from the plants which were sown here; for the summer in Carolina, from whence their first seed came, is both longer and hotter than it is here. But after the plants have been more used to the climate, and hastened more than they were formerly, the seeds are ripe in due time.

At night I returned to Raccoon.

May 4th. Crab trees are a species of wild apple trees, which grow in the woods and glades, but especially on little hillocks near rivers*. In New Jersey the tree is rather scarce; but in Pennsylvania is plentiful. Some people had planted a single tree of this kind near their farms, on account of the fine smells which its flowers afford. It had begun to open some of its flowers about a day or two ago; however, most of them were not yet open. They are exactly like the blossoms of the common apple trees, except that the colour is a little more reddish in the crab trees; though some kinds of the cultivated trees have flowers which are very near as red: but the smell distinguishes them plainly; for the wild trees have a very pleasant smell, somewhat like the rasp-berry. The apples, or crabs, are small, sour, and unfit for any thing but to make vinegar of. They lie under the trees all the winter, and acquire a yellow colour. They seldom begin to rot before spring comes on.

I cannot omit an observation here. The crab-trees opened their flowers only yesterday and to-day; whereas the cultivated apple-trees, which were brought from Europe, had already lost their flowers. The wild cherry-trees did not flower before the 12th of May: on the other hand, the cultivated or European ones, had already opened their blossoms on the 24th of April. The black walnut-trees of this country had neither leaves nor flowers, when the European kind has large leaves and blossoms. From hence it appears that trees brought over from Europe, of the same kind with the wild trees of America, flower much sooner than the latter. I cannot say what is the reason

* *Pyrus coronaria*. Linn. Sp. Plant. *Malus sylvestris*, floribus odoratis. Gronov. Fl. Virginica. p. 55.

of this forwardness of the European trees in this country, unless they bring forth their blossoms as soon as they get a certain degree of warmth, which they have in their native country. It seems the European trees do not expect, after a considerable degree of warmth, any such cold nights as will kill their flowers; for, in the cold countries, there seldom happen any hot days succeeded by such cold nights as will hurt the flowers considerably. On the contrary, the wild trees in this country are directed by experience, (if I may so speak) not to trust to the first warmth; but they wait for a greater heat, when they are already safe from cold nights. Therefore, it happens often that the flowers of the European trees are killed by the frosts here; but the native trees are seldom hurt, though they be of the same kind with the European ones. This is a manifest proof of the wisdom of the Creator.

May 5th. Early this morning I went to Rapaapo, which is a great village, whose farms lay all scattered. It was inhabited merely by Swedes, and not a single Englishman, or people of any other nation lived in it: therefore they have preserved their native Swedish tongue, and mixed but few English words with it. The intention of my journey was partly to see the place, and to collect plants and other natural curiosities there; and partly to find the places where the white cedar, or *cupressus thyoides*, grows.

The May flowers, as the Swedes call them, were plentiful in the woods wherever I went to-day; especially on a dry soil, or one that is somewhat moist. The Swedes have given them this name because they are in full blossom in May. Some of the Swedes and the Dutch call them *pinxter-bloem*, (Whitsunday flowers), as they really are in blossom about Whitsuntide. The English call them wild honeysuckles; and at a distance they have some similarity to the honeysuckle or *lonicera*. Dr. Linnæus, and other botanists, call it an *azalea* *. Its flowers were now open, and added a new ornament to the woods, being little inferior to the flowers of the honeysuckle and *hedysarum*. They sit in a circle round the stem's extremity, and have either a dark red or a lively red colour; but, by standing for some time, the sun bleaches them, and at last they get a whitish hue. I know not why Colden calls them yellow †. The height of the bush is not always alike. Some were as tall as a full grown man, and taller; others were but low, and some were not above a palm from the ground; yet they were all full of flowers. The people have not yet found that this plant may be applied to any use; they only gather the flowers, and put them in pots, because, they are very showy. They have some smell; but I cannot say it is very pleasant. However, the beauty of the colour entitles them to a place in every flower-garden.

To-day I saw the first ear of this year's rye. In Sweden, rye begins to shew its ears about Ericmas, that is about the 18th of May, old stile ‡. But in New Sweden, the people said, they always saw the ears of rye in April, old stile; whether the spring begins late or early. However, in some years the ears come early, and in others late in April. This spring was reckoned one of the late ones.

Bullfrogs || are a large species of frogs which I had an opportunity of hearing and seeing to-day. As I was riding out, I heard a roaring before me; and I thought it was a bull in the bushes, on the other side of the dyke, though the sound was rather more hoarse than that of a bull. I was, however, afraid that a bad going bull might

* *Azalea nudiflora*. Linn. Spec. Plant. p. 214. *Azalea ramis infra flores nudis*. Gron. Virg. 21.

† *Azalea erecta*, foliis ovatis, integris, alternis, flore luteo, piloso, præcoci. Cold. Ebor. 25.

‡ Accordingly about the 29th of May, new stile.

|| *Rana boans*. Linn. Syst. I. p. 358. *Rana maxima, Americana, aquatica*. Catfish. Carol. II. 72.

be near me, though I did not see him, and I continued to think so till some hours after, when I talked with some Swedes about the bullfrogs, and, by their account, I immediately found that I had heard their voice; for the Swedes told me, that there were numbers of them in the dyke. I afterwards hunted for them. Of all the frogs in this country, this is doubtless the greatest. I am told that towards autumn, as soon as the air begins to grow a little cool, they hide themselves under the mud, which lies at the bottom of ponds and stagnant waters, and lie there torpid during winter. As soon as the weather grows mild, towards summer, they begin to get out of their holes and croak. In the spring, that is, if the mild weather begins early, they appear about the end of March, old stile; but if it happens late, they tarry under water till late in April. Their places of abode are ponds and bogs with stagnant water; they are never in any flowing water. When many of them croak together, they make an enormous noise. Their croak exactly resembles the roaring of an ox or bull which is somewhat hoarse. They croak so loud, that two people talking by the side of a pond cannot understand each other. They croak all together; then stop a little, and begin again. It seems as if they had a captain among them: for when he begins to croak, all the others follow; and when he stops, the others are all silent. When this captain gives the signal for stopping, you hear a note like poop coming from him. In day time they seldom make any great noise, unless the sky is covered. But the night is their croaking time; and, when all is calm, you may hear them, though you are near a mile and a half off. When they croak, they commonly are near the surface of the water, under the bushes, and have their heads out of the water. Therefore, by going slowly, one may get close up to them before they go away. As soon as they are quite under water, they think themselves safe, though the water be very shallow.

Sometimes they sit at a good distance from the pond, but as soon as they suspect any danger, they hasten with great leaps into the water. They are very expert at hopping. A full-grown bullfrog takes near three yards at one hop. I have often been told the following story by the old Swedes, which happened here, at the time when the Indians lived with the Swedes. It is well known, that the Indians are excellent runners; I have seen them at Governor Johnson's, equal the best horse in its swiftest course, and almost pass by it. Therefore, in order to try how well the bull-frogs could leap, some of the Swedes laid a wager with a young Indian, that he could not overtake the frog, provided it had two leaps before hand. They carried a bullfrog, which they had caught in a pond, upon a field, and burnt his back-side; the fire, and the Indian, who endeavoured to be closely up with the frog, had such an effect upon the animal, that it made its long hops across the field as fast as it could. The Indian began to pursue the frog with all his might at the proper time: the noise he made in running frightened the poor frog; probably it was afraid of being tortured with fire again, and therefore it redoubled its leaps, and by that means it reached the pond before the Indian could overtake it.

In some years they are more numerous than in others: nobody could tell whether the snakes had ever ventured to eat them, though they eat all the lesser kinds of frogs. The women are no friends to these frogs, because they kill and eat young ducklings and goslings: sometimes they carry off chickens that come too near the ponds. I have not observed that they bite when they are held in the hands, though they have little teeth; when they are beaten, they cry out almost like children. I was told that some eat the thighs of the hind legs, and that they are very palatable.

A tree which grows in the swamps here, and in other parts of America, goes by the name of white juniper tree. Its stem indeed looks like one of our old tall and strait juniper-

juniper-trees in Sweden: but the leaves are different, and the wood is white. The English call it white cedar, because the boards which are made of the wood are like those made of cedar. But neither of these names are just, for the tree is of the cypress kind*. It always grows in wet ground or swamps: it is therefore difficult to come to them, because the ground between the little hillocks is full of water. The trees stand both on the hillocks and in the water: they grow very close together, and have strait, thick, and tall stems; but they were greatly reduced in number to what they have been before. In such places where they are left to grow up, they grow as tall and as thick as the tallest fir trees; they preserve their green leaves both in winter and summer; the tall ones have no branches on the lower part of the stem.

The marshes where these trees grow are called cedar swamps. The cedar swamps are numerous in New Jersey, and likewise in some parts of Pennsylvania and New York. The most northerly place, where it has been hitherto found, is near Goshen in New York, under forty-one degrees and twenty-five minutes of north latitude, as I am informed by Dr. Colden. For to the north of Goshen, it has not been found in the woods. The white cedar is one of the trees which resist the most to putrefaction; and when it is put above ground, it will last longer than under ground: therefore it is employed for many purposes; it makes good fences, and posts which are to be put into the ground; but in this point, the red cedar is still preferable to the white; it likewise makes good canoes. The young trees are employed for hoops round barrels, tuns, &c., because they are thin and pliable; the thick and tall trees afford timber and wood for cooper's work. The houses which are built of it surpass, in duration, those which are built of American oak. Many of the houses in Rapaapo were made of this white cedar wood; but the chief thing which the white cedar affords is the best kind of shingles. The white cedar shingles are preferred to all others for several reasons; first, they are more durable than any others made of American wood, the red cedar shingles excepted; secondly, they are very light, so that no strong beams are requisite to support the roof. For the same reason it is unnecessary to build thick walls, because they are not pressed by heavy roofs. When fires break out, it is less dangerous to go under or along the roofs, because the shingles being very light can do little hurt by falling; they suck the water, being somewhat spongy, so that the roofs can easily be wetted in case of a fire: however, their fatness occasions that the water does not hurt them, but evaporates easily. When they burn and are carried about by the wind, they have commonly what is called a dead coal, which does not easily set fire where it alights. The roofs made of these shingles can easily be cut through, if required, because they are thin, and not very hard; for these qualities the people in the country, and in the towns, are very desirous of having their houses covered with white cedar shingles, if the wood can be got. Therefore all churches, and the houses of the more substantial inhabitants of the towns, have shingle roofs. In many parts of New York province, where the white cedar does not grow, the people, however, have their houses roofed with cedar shingles, which they get from other parts. To that purpose great quantities of shingles are annually exported from Eggharbour and other parts of New Jersey, to the town of New York, from whence they are distributed throughout the province. A quantity of white cedar wood is likewise exported every year to the West Indies, for shingles, pipe-staves, &c. Thus the inhabitants are very busy here, not only to lessen the number of these trees, but even to extirpate them entirely.

* *Cupressus thyoides*. Linn. Spec. Pl. p. 1422. *Cupressus Americana*, fructu minimo. Miller's Gard. Dictionary.

They are here (and in many other places) in regard to wood, bent only upon their own present advantage, utterly regardless of posterity. By this means many cedar swamps are already quite destitute of cedars, having only young shoots left; and I plainly observed, by counting the circles round the stem, that they do not grow up very quickly, but require a great deal of time before they can be cut for timber. It is well known that a tree gets only one circle every year; a stem, eighteen inches in diameter, had one hundred and eight circles round the thicker end: another, seventeen inches in diameter, had a hundred and sixteen; and another, two feet in diameter, had one hundred and forty-two circles upon it. Thus near eighty years growth is required, before a white cedar raised from seed can be used for timber. Among the advantages which the white cedar shingles have over others, the people reckon their lightness. But this good and useful quality may in future times turn out very disadvantageous to Philadelphia, and other places where the houses are roofed with cedar shingles: for as the roofs made of these shingles are very light, and bear but a trifling weight on the walls, so the people have made the walls but very thin. I measured the thickness of the walls of several houses here, of three stories high (cellar and garret not included), and found most of them nine inches and a half, and some ten inches thick; therefore it is by no means surprising, that violent hurricanes sometimes make the brick gable-ends to vibrate apparently, especially on such houses as have a very open situation. And since the cedar trees will soon be wanting in this country, and the present roofs when rotten must be supplied with heavier ones of tiles, or of other wood, it is more than probable, that the thin walls will not be able to bear such an additional weight, and will either break or require to be supported by props: or else the whole house must be pulled down and rebuilt with thicker walls. This observation has already been made by others. Some of the people here make use of the chips of white cedar instead of tea, assuring me that they preferred it in regard to its wholesomeness to all foreign tea. All the inhabitants here were of opinion, that the water in the cedar swamps is wholesomer than any other drink; it creates a great appetite, which they endeavoured to prove by several examples. They ascribed this quality to the water itself, which is filled with the rosin of the trees, and to the exhalations which came from the trees, and can easily be smelled. The people likewise thought that the yellowish colour of the water, which stands between the cedar trees, was owing to the rosin, which comes out of the roots of these trees. They likewise all agreed, that this water is always very cold in the hottest season, which may be partly owing to the continual shade it is in. I knew several people who were resolved to go to these cedar swamps, and use the waters for the recovery of their appetite. Mr. Bartram planted a white cedar in a dry soil, but it could not succeed there: he then put it into a swampy ground, where it got as it were new life, and came on very well; and though it was not taller than a man, yet it was full of cones. Another thing is very remarkable, with regard to the propagation of this tree: Mr. Bartram cut its branches in spring two years successively, and put them into the swampy soil, where they struck roots, and succeeded very well. I have seen them myself.

The red juniper-tree is another tree which I have mentioned very frequently in the course of my account. The Swedes have given it the name of red juniper, because the wood is very red and fine within. The English call it red cedar, and the French *cedre rouge*. However, the Swedish name is the most proper, as the tree belongs to the junipers*. At its first growth it has a deal of similarity to the Swedish juniper†,

* *Juniperus Virginiana*. Lin. Spec. pl. p. 114.

† *Juniperus communis*. Linn. Spec. pl. p. 1470.

but

but after it is grown up it gets quite different leaves. The berry exactly resembles that of the Swedish juniper, in regard to its colour and shape; however, they are not so big, though the red cedar grows very tall. At Raccoon these trees stood single, and were not very tall. But at other places I have seen them standing together in clusters; they like the same ground as the common Swedish juniper, especially on the rising banks of rivers, and on other rising grounds, in a dry, and frequently in a poor soil. I have seen them growing in abundance, as thick and tall as the tallest fir-trees, on poor dry and sandy heaths. Towards Canada, or in the most northerly places, where I have seen them, they commonly choose the steep sides of the mountains, and there they grow promiscuously with the common juniper. The most northerly places where I have found them wild in the woods, is in Canada, eighteen French miles to the southward of the Fort Saint Jean, or St. John, in about $44^{\circ} 35'$ north latitude. I have likewise seen it growing very well in a garden, on the island of Magdalene*, belonging to the then governor of Montreal, Monsieur le Baron de Longueil. But it had been got at more southerly places, and was transplanted here. Of all the woods in this country, this is without exception the most durable, and withstands putrefaction longer than any other; it is therefore employed in all such cases where it is most liable to rot, especially for all kinds of posts which are to be put into the ground. Some people say, that if an iron be put into the ground along with a pole of cedar, the iron would be half corroded by rust in the same time that the wood would be rotten. In many places both the fences, and the posts belonging to them, are made of red cedar. The best canoes, consisting of a single piece of wood, are made of red cedar; for they last longer than any others, and are very light. In New York I have seen pretty large yachts built of red cedar. Several yachts which go from New York to Albany, up the river Hudson, are built in a different manner, as I have mentioned in the first volume†. In Philadelphia they cannot make any yachts or other boats of red cedar, because the quantity and the size of the trees will not allow of it. For the same reason they do not roof their houses with red cedar shingles; but in such places where it is plentiful, it makes excellent good roofs. The heart of this cedar is of a fine red colour, and whatever is made of it looks very fine, and has a very agreeable and wholesome smell. But the colour fades by degrees, or else the wood would be exceedingly proper for cabinet work. I saw a parlour in the country seat of Mr. Norris, one of the members of the Pennsylvania house of assembly, wainscotted many years ago with boards of red cedar. Mr. Norris assured me that the cedar looked exceedingly well in the beginning, but it was quite faded when I saw it, and the boards looked very shabby, especially the boards near the window had entirely lost their colour; so that Mr. Norris had been obliged to put mahogany in their stead: however, I was told, that the wood will keep its colour if a thin varnish is put upon it whilst it is fresh, and just after it has been planed, and if care is taken that the wood is not afterwards rubbed or hurt. At least it makes the wood keep its colour much longer than commonly. Since it has a very pleasant smell when fresh, some people put the shavings and chips of it among their linen to secure it against being worm-eaten. Some likewise get bureaux, &c. made of red cedar, with the same view. But it is only useful for this purpose as long as it is fresh, for it loses its smell after some time, and is then no longer good for keeping off insects. It is sometimes sent to England, as timber, and sells very well. In many places round Philadelphia,

* An island in the river St. Lawrence, close by the town of Montreal in Canada.

† The lower part of the yachts, which is continually under water, is made of black oak; the upper part is built of red cedar, because it is sometimes above and sometimes in the water.

in the seats of the gentry, there was commonly an avenue, with a row of these trees planted on both sides, leading from the high road to the house. The lower branches were cut, and only a fine crown left. In winter, when most other trees have lost their leaves, this looks very fine. This tree has likewise a very slow growth; for a stem, thirteen inches and a quarter in diameter, had one hundred and eighty-eight rings, or annual circles; and another, eighteen inches in diameter, had at least two hundred and fifty, for a great number of the rings were so fine that they could not be counted. This tree is propagated in the same manner as the common juniper-tree is in Sweden, viz. chiefly by birds, which eat the berries and emit the seeds entire.

In the evening I returned to Raccoon.

May 6th. The mulberry-trees (*morus rubra*) about this time began to blossom, but their leaves were yet very small. The people divided them into male and female trees or flowers; and said that those which never bore any fruit were males, and those which did, females.

Smilax laurifolia was superabundant in all the swamps near this place. Its leaves were now beginning to come out, for it sheds them all every winter; it climbs up along trees and shrubs, and runs across from one tree or bush to another: by this means it shuts up the passage between the trees, fastening itself every where with its cirrhi or tendrils, and even on people, so it is with the utmost difficulty one must force a passage in the swamps and woods, where it is plentiful; the stalk towards the bottom is full of long spines, which are as strong as the spines of a rose-bush, and catch hold of the clothes, and tear them: this troublesome plant may sometimes bring you into imminent danger, when botanizing or going into the woods, for, not to mention that the cloaths must be absolutely ruined by its numberless spines, it occasions a deep shade in the woods, by crossing from tree to tree so often; this forces you to stoop, and even to creep on all fours through the little passages which are left close to the ground, and then you cannot be careful enough to prevent a snake (of which there are numbers here) from darting into your face. The stalk of the plant has the same colour as the young rose-bushes. It is quite green and smooth between the spines; so that a stranger would take it to be a kind of thorn-bush, in winter, when it is destitute of leaves.

May 8th. The trees hereabouts were now stocked with innumerable caterpillars; one kind especially was observable, which is worse than all the others. They immediately formed great white webs, between the branches of the trees, so that they were perceptible, even at a distance; in each of these webs were thousands of caterpillars, which crept out of them afterwards, and spread chiefly upon the apple-trees. They consumed the leaves, and often left not one on a whole branch. I was told, that some years ago they did so much damage, that the apple-trees and peach-trees hardly bore any fruit at all; because they had consumed all the leaves, and exposed the naked trees to the intense heat of the sun, by which means several of the trees died. The people took the following method of killing these caterpillars: They fixed some straw or flax on a pole, set it on fire, and held it under the web or nests; by which a part was burnt, and a part fell to the ground. However, numbers of the caterpillars crept up the trees again, which could have been prevented, if they had been trod upon, or killed any other way. I called chickens to such places where they crept on the ground in numbers; but they would not eat them. Nor did the wild birds like them; for the trees were full of these webs, though whole flights of little birds had their nests in the gardens and orchards.

May 18th. Though it was already pretty late in May, yet the nights were very dark here. About an hour after sun-set, it was so dark, that it was impossible to read in a

book, though the type was ever so large. About ten o'clock, on a clear night, the dark was so much increased, that it looked like one of the darkest star-light nights in autumn, in Sweden. It likewise seemed to me, that though the nights were clear, yet the stars did not give so great a light as they do in Sweden. And as, about this time, the nights are commonly dark, and the sky covered with clouds; I could compare them only to dark and cloudy Swedish winter nights. It was therefore, at this time of the year, very difficult to travel in such cloudy nights; for neither man nor horse could find their way. The nights, in general, seem very disagreeable to me, in comparison to the light and glorious summer nights of Sweden. Ignorance sometimes makes us think slightly of our country. If other countries have their advantages, Sweden is not destitute of matter to boast of on this head: it likewise has its peculiar advantages; and upon weighing the advantages and inconveniencies of different places, Sweden will be found to be not inferior to any of them.

I will briefly mention in what points I think Sweden is preferable to this part of America; and why I prefer Old Sweden to New Sweden.

The nights are very dark here all the summer; and in winter, they are quite as dark, if not darker, than the winter nights in Sweden; for here is no kind of aurora borealis, and the stars give a very faint light. It is very remarkable if an aurora borealis appears once or twice a year. The winters here bring no snow, to make the nights clear, and to make travelling more safe and easy. The cold is, however, frequently as intense as in Old Sweden. The snow which falls lies only a few days, and always goes off with a great deal of wet. The rattle-snakes, horned-snakes, red-bellied, green, and other poisonous snakes, against whose bite there is frequently no remedy, are in great plenty here. To these I must add the wood-lice, with which the forests are so pestered, that it is impossible to pass through a bush without having a whole army of them on your cloaths, or to sit down, though the place be ever so pleasant. The weather is so inconstant here, that when a day is most excessively hot, the next is often sensibly cold. This sudden change often happens in one day; and few people can suffer these changes, without impairing their health. The heat in summer is excessive, and the cold in winter often very piercing, but may be guarded against. But when the great heat endures long, there is hardly any remedy for it. It has frequently happened, that people who walked into the fields, dropped down dead, on account of the violence of the heat. Several distempers prevail here; and they increase every year. Nobody is left unattacked by the intermitting fever; and many people are forced to suffer it every year, together with other diseases. Pease cannot be sown, on account of the insects which consume them*. There are worms in the grains of rye, and numbers of them are in the cherry-trees. The caterpillars often eat all the leaves from the trees, so that they cannot bear fruit in that year; and numbers die every year, both of fruit-trees and forest-trees. The grass in the meadows is likewise consumed by a kind of worms, and other species cause the plums to drop before they are half ripe. The oak here affords not near so good timber as the European oak. The houses are of no long duration. The meadows are poor, and what grass they have is bad. The pasture for cattle in the forests consists of such plants as they do not like, and which they are compelled to eat by necessity; for it is difficult to find a single grass in great forests, where the trees stand far asunder, notwithstanding the soil is excellent. For this reason, the cattle are forced, during almost the whole winter and part of the summer, to live upon the young shoots and branches of trees, which sometimes have no leaves: therefore, the cows give very little milk, and decrease in size every generation. The houses

* *Bruchus pisi.*

are extremely unfit for winter habitations. Hurricanes are frequent, which overthrow trees, carry away roofs, and sometimes houses, and do a great deal of damage. Some of these inconveniences might be remedied by art; but others will either admit of no alteration, or they will at least cost vast trouble. Thus every country has its advantages, and its defects: happy is he who can content himself with his own.

The rye grows very ill in most of the fields, which is chiefly owing to the carelessness in agriculture, and to the poorness of the fields, which are seldom or never manured. After the inhabitants have converted a tract of land into fields, which had been a forest for many centuries together, and which consequently had a very fine soil, they use it as such, as long as it will bear any corn; and when it ceases to bear any, they turn it into pastures for the cattle, and take new corn-fields in another place, where a fine soil can be met with, and where it has never been made use of for this purpose. This kind of agriculture will do for some time; but it will afterwards have bad consequences, as every one may clearly see. A few of the inhabitants, however, treated their fields a little better: the English in general have carried agriculture to a higher degree of perfection than any other nation. But the depth and riches of the soil, which those found here who came over from England, (as they were preparing land for ploughing which had been covered with woods from times immemorial) misled them, and made them careless husbandmen. It is well known, that the Indians lived in this country for several centuries before the Europeans came into it; but it is likewise known, that they lived chiefly by hunting and fishing, and had hardly any fields. They planted maize, and some species of beans and gourds; and at the same time it is certain, that a plantation of such vegetables as serve an Indian family during one year, take up no more ground than a farmer in our country takes to plant cabbage for his family upon; at least, a farmer's cabbage and turnip ground, taken together, is always as extensive, if not more so, than the corn-fields and kitchen-gardens of an Indian family. Therefore, the Indians could hardly subsist for one month upon the produce of their gardens and fields. Commonly, the little villages of Indians are about twelve or eighteen miles distant from each other. From hence one may judge how little ground was formerly employed for corn-fields; and the rest was overgrown with thick and tall trees. And though they cleared (as is yet usual) new ground, as soon as the old had quite lost its fertility, yet such little pieces as they made use of were very inconsiderable when compared to the vast forests which remained. Thus the upper fertile soil increased considerably for centuries together; and the Europeans coming to America found a rich and fine soil before them, lying as loose between the trees as the best bed in a garden. They had nothing to do but to cut down the wood, put it up in heaps, and to clear the dead leaves away. They could then immediately proceed to ploughing, which in such loose ground is very easy; and having sown their corn, they got a most plentiful harvest. This easy method of getting a rich crop has spoiled the English and other European inhabitants, and induced them to adopt the same method of agriculture which the Indians make use of; that is, to sow uncultivated grounds, as long as they will produce a crop without manuring, but to turn them into pastures as soon as they can bear no more, and to take in hand new spots of ground, covered since time immemorial with woods, which have been spared by the fire or the hatchet ever since the creation. This is likewise the reason why agriculture, and the knowledge of this useful branch, is so imperfect here, that one can learn nothing in a great tract of land, neither of the English, nor of the Swedes, Germans, Dutch, and French; except that, from their gross mistakes and carelessness for futurity, one finds opportunities every day of making all sorts of observations, and of growing wise at the expence of other people.

In a word, the corn-fields, the meadows, the forests, the cattle, &c. are treated with great carelessness by the inhabitants. We can hardly be more lavish of our woods in Sweden and Finland than they are here: their eyes are fixed upon the present gain, and they are blind to futurity. Every day their cattle are harassed by labour, and each generation decreases in goodness and size, by being kept short of food, as I have before mentioned. On my travels in this country I observed several plants which the horses and cows preferred to all others. They were wild in this country, and likewise grew well on the driest and poorest ground, where no other plants would succeed. But the inhabitants did not know how to turn this to their advantage, owing to the little account made of Natural History, that science being here (as in other parts of the world) looked upon as a mere trifle, and the pastime of fools. I am certain, and my certainty is founded upon experience, that by means of these plants, in the space of a few years, I have been able to turn the poorest ground, which would hardly afford food for a cow, into the richest and most fertile meadow, where great flocks of cattle have found superfluous food, and are grown fat upon. I own, that these useful plants were not to be found on the grounds of every planter; but with a small share of natural knowledge, a man would easily collect them in the places where they were to be got. I was astonished, when I heard the country people complaining of the badness of the pastures; but I likewise perceived their negligence, and often saw excellent plants growing on their own grounds, which only required a little more attention and assistance from their unexperienced owners. I found every where the wisdom and goodness of the Creator; but too seldom saw any acknowledgment, or adequate estimation of it, among men.

O fortunatos nimium sua si bona norint

Agricolas!

VIRG. Georgic.

I have been led to these reflections, which may perhaps seem foreign to my purpose, by the bad and neglected state of agriculture in every part of this continent. I likewise intended to shew the reason why this journal is so thinly stocked with æconomical advantages in the several branches of husbandry. I do not however deny that I have sometimes found one or two skilful æconomists, but they were very scarce.

Birds of prey which pursue the poultry are found in abundance here, and if possible more plentiful than in Sweden. They enjoy great liberty here, as there are still great forests in many places, from whence they can come unawares upon chickens and ducks. To the birds of prey it is quite indifferent whether the woods consist of good or bad trees, provided they are in shade. At night the owls, which are very numerous, endanger the safety of the tame fowls. They live chiefly in marshes, give a disagreeable shriek at night, and attack the chickens, which commonly roost at night in the apple-trees, peach-trees, and cherry-trees, in the garden. But since they are very busy in clearing this country of woods, as we are in Sweden and Finland, it may be of use for exposing the birds of prey, more than they are now, and for depriving them of the opportunities of doing mischief with so much ease.

The thick forests of America contain numbers of stags; they do not seem to be a different species from the European stags. An Englishman was possessed of a tame hind. It is observable that though these creatures are very shy when wild in the woods and cedar swamps, which are very much frequented by them, yet they can be tamed to such a degree, if taken young, that they will come of their own accord to seek for food. This hind was caught when it was but very little; the colour of the whole body was a dirty reddish brown, the belly and the under side of the tail excepted, which were white; the ears were grey; the head, towards the snout, was very narrow; but
upon

upon the whole the creature looked very fine. The hair lay close together, and was quite short; the tail reached almost to the bend of the knee, near which, on the inside of each hind-foot, was a knob or callus. The possessor of the hind said that he had tamed several stags, by catching them whilst they were very young. It was now big with young ones. It had a little bell hung about its neck, that by walking in the woods, the people might know it to be tame, and take care not to shoot it. It was at liberty to go where it pleased, and to keep it confined would have been a pretty hard task, as it could leap over the highest enclosures. Sometimes it went far into the woods, and frequently staid away a night or two, but afterwards returned home like other cattle. When it went into the woods, it was often accompanied by wild stags, and decoyed them even into the very houses, especially in rutting time, giving its master numerous opportunities of shooting the wild stags, almost at his door. Its scent was excellent, and when it was turned towards the wind, I often saw it rising and looking towards that part, though I did not see any people on the road, but they commonly appeared about an hour after. As soon as the wild stags have the scent of a man, they make off. In winter the man fed the hind with corn and hay; but in summer it went out into the woods and meadows, seeking its own food, eating both grass and other plants: it was now kept in a meadow; it did chiefly eat clover, the leaves of hiccory, of the andromeda paniculata, and the geranium maculatum. It was likewise contented with the leaves of the common plantane, or plantago, grasses, and several other plants. The possessor of this hind sold stags to people in Philadelphia, who sent them as curiosities to other places. He got twenty-five, thirty, and forty shillings a-piece for them. In the long and severe winter, which commenced here upon the tenth of December 1740, and continued to the thirteenth of March, old style, during the course of which there fell a great quantity of snow, the stags were found dead in the snow, but chiefly higher up the country, where the snow was deeper. Nobody could determine whether their death was the consequence of the great quantity and depth of snow, which hindered their getting out, or whether the frost had been too severe, and of too long duration, or whether they were short of food. The old people likewise relate that vast numbers of stags came down in the year 1705, when there was a heavy fall of snow, near a yard deep, and that they were afterwards found dead in the woods, in great numbers, because the snow was deeper than they could pass through. Numbers of birds were likewise found dead at that time. In that same winter a stag came to Matsong into the stables, and eat hay together with the cattle. It was so pinched by hunger that it grew tame immediately, and did not run away from people. It afterwards continued in the house, as another tame creature. All aged persons asserted, that formerly this country abounded more with stags than it does at present. It was formerly not uncommon to see thirty or forty of them in a flock together. The reason of their decrease is chiefly owing to the increase of population, the destruction of the woods, and the number of people who kill and frighten the stags at present. However, high up in the country, in great forests and desarts, there are yet great numbers of them. Among their enemies is the lynx of this country, which is the same with the Swedish one*. They climb up the trees, and when the stags pass by, they dart down upon him, get fast hold, bite, and suck the blood, and never give over till they have killed it.

* Warglo; felis lynx Linn. The Swedes mention two kinds of lynx; the one is called the warglo, or wolf-lynx, and the other the kattlo, or cat-lynx. The Germans make the same distinction, and call the former wolf-luchs, and the latter katz-luchs: the former is the biggest, of a brownish red, mixed with grey and white on its back, and white towards the belly, with brownish spots; the latter is smaller, and has a coat which is more white, and with more spots. F.

I saw several holes in the ground, both on hills and on fields, and fallow grounds; they were round, and commonly about an inch wide; they went almost perpendicularly into the earth, and were made by dung-beetles, or by great worms, which are made use of for angling. The dung-beetles had dug very deep into the ground, through horse-dung, though it lay on the hardest road, so that a great heap of earth lay near it. These holes were afterwards occupied by other insects, especially grasshoppers, (*grylli*) and cicadae; for by digging these holes up, I commonly found one or more young ones of these insects, which had not yet got their perfect size.

May 19th. This morning I left Raccoon, a parish in the country called New Sweden, and which is yet chiefly inhabited by Swedes, in order to proceed in my travels to the North. I first intended to set out with the beginning of April, but for several reasons this was not advisable. No leaves were come out at that time, and hardly any flowers appeared. I did not know what flowers grew here in spring; for the autumnal plants are different from the vernal ones. The Swedes had this winter told me the oeconomic and medical uses of many plants, to which they gave names unknown to me: they could not then shew me those plants on account of the season, and by their deficient and erroneous descriptions, I was not able to guess what plants they meant. By going away so early as the beginning of April I would have remained in uncertainty in regard to these things. It was therefore fit that I should spend a part of the spring at Raccoon, especially as I had still time enough left for my tour to the North.

On the road we saw a black snake, which we killed, and found just five feet long. Catesby has described it and its qualities, and also drawn it*. The full-grown black snakes are commonly about five feet long, but very slender; the thickest I ever saw was in the broadest part hardly three inches thick; the back is black, shining, and smooth; the chin white and smooth; the belly whitish turning into blue, shining, and very smooth; I believe there are some varieties of this snake. One, which was nineteen inches long, had a hundred and eighty-six scales on the belly, (*scuta abdominalia*) and ninety-two half scales on the tail (*squamæ subcaudales*), which I found to be true, by a repeated counting of the scales. Another, which was seventeen inches and a half in length, had a hundred and eighty-four scales on the belly, and only sixty-four half scales on the tail; this I likewise assured myself of, by counting the scales over again. It is possible that the end of this last snake's tail was cut off, and the wound healed up again†.

The country abounds with black snakes. They are among the first that come out in spring, and often appear very early if warm weather happens; but if it grows cold again after that, they are quite frozen, and lie stiff and torpid on the ground or on the ice; when taken in this state and put before a fire, they revive in less than an hour's time. It has sometimes happened, when the beginning of January is very warm, that

* *Anguis niger*. See Catesby's Nat. Hist. of Carol. ii. t. 48.

† It has been found by repeated experience, that the specific character employed by Dr. Linnæus, for the distinction of the species of snakes, taken from their *scuta abdominalia* and *caudalia*, or their *squamæ subcaudales*, varies greatly in snakes of the same species, so that often the difference amounts to ten or more: the whole number of the *scuta* sometimes helps to find out the species; care ought however to be taken that the snake may not by any accident have lost its tail, and that it be growing again; in which case it is impossible to make use of this character. The character is not quite so good and decisive as may be wished, but neither are the marks taken from colours, spots, stripes, &c. quite constant; and so it is better to make use of an imperfect character than none at all. Time, and greater acquaintance with this class of animals may perhaps clear up their natural characters. F.

they come out of their winter habitations. They commonly appear about the end of March, old style.

This is the swiftest of all the snakes which are to be found here, for it moves so quick that a dog can hardly catch it. It is therefore almost impossible for a man to escape it if pursued; but happily its bite is neither poisonous nor any way dangerous; many people have been bit by it in the woods, and have scarce felt any more inconvenience than if they had been wounded by a knife; the wounded place only remains painful for some time. The black snakes seldom do any harm, except in spring, when they copulate; at which time, if disturbed, they will attack the person that disturbs them. I am acquainted with several people, who have on such an occasion run so hard as to be quite out of breath, in endeavouring to escape the snake, which moved with the swiftness of an arrow after them. If a person thus pursued can muster up courage enough to oppose the snake with a stick or any thing else, when it is either passed by him, or when he steps aside to avoid it, it will turn back again, and seek a refuge in its swiftness. I have been assured by several, that when it overtakes a person who has tried to escape it, and who has not courage enough to oppose it, it winds round his feet, so as to make him fall down; it then bites him several times in the leg, or whatever part it can get hold of, and goes off again. I shall mention two circumstances, which confirm what I have said. During my stay in New York, Doctor Colden told me, that in the spring 1748, he had several workmen at his country seat, and among them one lately arrived from Europe, who of course knew very little of the qualities of the black snake. The other workmen seeing a great black snake copulating with its female, engaged the new comer to go and kill it, which he intended to do with a little stick. But on approaching the place where the snakes lie, they perceived him, and the male in great wrath leaves his pleasure to pursue the fellow with amazing swiftness; he little expected such courage in the snake, and flinging away his stick, began to run as fast as he was able. The snake pursued him, overtook him, and twisting several times round his feet, threw him down, and frightened him almost out of his senses; he could not get rid of the snake, till he took a knife and cut it through in two or three places. The other workmen were rejoiced at this fight, and laughed at it, without offering to help their companion. Many people at Albany told me of an accident which happened to a young lady, who went out of town in summer, together with many other girls, attended by her negro. She sat down in the wood, in a place where the others were running about, and before she was aware, a black snake being disturbed in its amours, ran under her petticoats, and twisted round her waist, so that she fell backwards in a swoon, occasioned by her fright or by the compression which the snake caused. The negro came up to her, and suspecting that a black snake might have hurt her, on making use of a remedy to bring his lady to herself again, he lifted up her cloaths, and really found the snake wound about her body as close as possible; the negro was not able to tear it away, and therefore cut it, and the girl came to herself again; but she conceived so great an aversion to the negro, that she could not bear the sight of him afterwards, and died of a consumption. At other times of the year this snake is more apt to run away than to attack people. However, I have heard it asserted frequently, that even in summer when its time of copulation is past, it pursues people, especially children, if it finds that they are afraid and run from it. Several people likewise assured me from their own experience, that it may be provoked to pursue people, if they throw at it, and then run away. I cannot well doubt of this, as I have heard it said by numbers of creditable people; but though I wanted to try the experiment I could never succeed in provoking them.

Most

Most of the people in this country ascribed to this snake a power of fascinating birds and squirrels, as I have described in several parts of my journal. When the snake lies under a tree, and has fixed his eyes on a bird or squirrel above; it obliges them to come down, and to go directly into its mouth. I cannot account for this, for I never saw it done. However, I have a list of more than twenty persons, among which are some of the most creditable people, who have all unanimously, though living far distant from each other, asserted the same thing; they assured me, upon their honour, that they have seen (at several times) these black snakes fascinating squirrels and birds which sat on the tops of trees, the snake lying at the foot of the tree, with its eyes fixed upon the bird or squirrel, which sits above it, and utters a doleful note; from which it is easy to conclude with certainty that it is about to be fascinated, though you cannot see it. The bird or squirrel runs up and down along the tree continuing its plaintive song, and always comes nearer the snake, whose eyes are unalterably fixed upon it. It should seem as if these poor creatures endeavoured to escape the snake, by hopping or running up the tree; but there appears to be a power which withholds them: they are forced downwards, and each time that they turn back they approach nearer their enemy, till they are at last forced to leap into its mouth, which stands wide open for that purpose. Numbers of squirrels and birds are continually running and hopping fearless in the woods on the ground, where the snakes lie in wait for them, and can easily give these poor creatures a mortal bite. Therefore it seems that this fascination might be thus interpreted, that the creature has first got a mortal wound from the snake, which is sure of her bite, and lies quiet, being assured that the wounded creature has been poisoned with the bite, or at least feels pain from the violence of the bite, and that it will at last be obliged to come down into its mouth. The plaintive note is perhaps occasioned by the acuteness of the pain which the wound gives the creature. But to this it may be objected, that the bite of the black snake is not poisonous; it may further be objected, that if the snake could come near enough to a bird or squirrel to give it a mortal bite, it might as easily keep hold of it, or, as it sometimes does with poultry, twist round and strangle or stifle it. But the chief objection which lies against this interpretation is the following account, which I received from the most creditable people, who have assured me of it. The squirrel being upon the point of running into the snake's mouth, the spectators have not been able to let it come to that pitch, but killed the snake, and as soon as it had got a mortal blow the squirrel or bird destined for destruction flew away, and left off their moanful note, as if they had broke loose from a net. Some say, that if they only touched the snake, so as to draw off its attention from the squirrel, it went off quickly, not stopping till it had got to a great distance. Why do the squirrels or birds go away so suddenly, and why no sooner? If they had been poisoned or bitten by the snake before, so as not to be able to get from the tree, and to be forced to approach the snake always more and more, they could however not get new strength by the snake being either killed or diverted. Therefore, it seems that they are only enchanted, whilst the snake has its eyes fixed on them. However, this looks odd and unaccountable, though many of the worthiest and most reputable people have related it, and though it is so universally believed here, that to doubt it would be to expose oneself to general laughter.

The black snakes kill the smaller species of frogs, and eat them. If they get at eggs of poultry, or of other birds, they make holes in them, and suck the contents. When the hens are sitting on the eggs they creep into the nest, wind round the birds, stifle them, and suck the eggs. Mr. Bartram asserted, that he had often seen this snake creep up into the tallest trees, after birds' eggs, or young birds, always with the

head foremost, when descending. A Swede told me, that a black snake had once got the head of one of his hens in its mouth, and was wound several times round the body, when he came and killed the snake. The hen was afterwards as well as ever.

This snake is very greedy of milk, and it is difficult to keep it out when it is once used to go into a cellar where milk is kept. It has been seen eating milk out of the same dish with children, without biting them, though they often gave it blows with the spoon upon the head, when it was over greedy. I never heard it hissing. It can raise more than one half of its body from the ground, in order to look about her. It skins every year; and its skin is said to be a remedy against the cramp, if continually worn about the body.

The rye was now beginning to flower.

I have often observed with astonishment, on my travels, the great difference between the plants and the soil, on the two opposite banks of brooks. Sometimes a brook, which one can stride over, has plants on one bank widely different from those on the opposite bank. Therefore, whenever I came to a great brook or a river, I expected to find plants which I had not met with before. Their seeds are carried down with the stream from distant parts. The soil is likewise very often different on the different sides of a rivulet, being rich and fertile on the one, and dry, barren, and sandy on the other. But a great river can make still greater differences. Thus we see the great disparity between the province of Pennsylvania and New Jersey, which are only divided by the river Delaware. In Pennsylvania the soil consists of a mould mixed with sand and clay, and is very rich and fertile; and in the woods which are high in the country, the ground is mountainous and stony. On the other hand, in the province of New Jersey, the soil is poor and dry, and not very fertile, some parts excepted. You can hardly find a stone in New Jersey, and much less mountains. In Pennsylvania you scarce ever see a fir-tree, and in New Jersey are whole woods of it.

This evening I arrived at Philadelphia.

May 22d. The locusts began to creep out of their holes in the ground last night, and continued to do so to-day. As soon as their wings were dry, they began their song, which is almost sufficient to make one deaf, when travelling through the woods. This year there was an immense number of them.

May 25th. The tulip-tree (*liriodendron tulipifera*) was now in full blossom. The flowers have a resemblance to tulips, and look very fine, and though they have not a very agreeable smell, yet the eye is pleased to see trees as tall as full-grown oaks, covered with tulip-like flowers.

On the flowers of the tulip-tree was an olive-coloured chafer (*scarabæus*), without horns (*muticus*), the suture and borders of his wing-shells (*elytræ*) were black, and his thighs brown. I cannot with certainty say whether they collected the pollen of the flower, or whether they coupled. Later in summer, I saw the same kind of beetles make deep holes into the ripe mulberries, either to eat them, or to lay their eggs in them. I likewise found them abundant in the leaves of the *magnolia glauca*, or beaver-tree.

The strawberries were now ripe on the hills.

The country people already brought ripe cherries up to town; but they were only a few to satisfy curiosity, yet we may form a judgment of the climate from hence.

May 26th. A peculiar kind of storm called a *travat*, or *travado*, happened to-day. In the evening about ten o'clock, when the sky was quite clear, a thick black cloud came rushing from the south-west, with a wind. The air was quite calm, and we could not feel any breeze; but the approach of this cloud was perceived from the strong

rushing noise in the woods to the south-west, and which increased in proportion as the cloud came nearer. As soon as it was come up to us, it was attended by a violent gust of wind, which in its course threw down the weaker enclosures, carried them a good way along with it, and broke down several trees. It was then followed by a hard shower of rain, which put an end to the storm, and every thing was calm as before. These travadoes are frequent in summer, and have the quality of cooling the air. However, they often do a great deal of damage; they are commonly attended by thunder and lightning; as soon as they are passed over the sky is as clear as it was before.

May 28th. The magnolia glauca was now in full bloom. Its flowers have a very pleasant fragrantcy, which refreshes the travellers in the woods, especially towards the evening. The flowers of the wild vine afterwards supplied the place of those of the magnolia. Several other flowers contribute likewise towards perfuming the ambient air.

The kalmia angustifolia was now every where in flower: it grows chiefly on sandy heaths or on dry poor grounds, which few other plants will agree with; it is common in Pennsylvania, but particularly in New Jersey and the province of New York; it is scarce in Canada; its leaves stay the winter; the flowers are a real ornament to the woods; they grow in bunches like crowns, and are of a fine lively purple colour; at the bottom is a circle of deep purple, and within it a greyish or whitish colour. The flowers grow as aforesaid, in bunches, round the extremity of the stalk, and make it look like a decorated pyramid. The English at New York, call this plant the dwarf laurel. Its qualities are the same with those of the kalmia latifolia, viz. that it kills sheep and other smaller animals, when they eat plentifully of it. I do not know whether it is noxious to the greater cattle. It is not of any known use, and only serves to attract the eye whilst in flower.

The kalmia latifolia was likewise in full blossom at present: it rivals the preceding one in the beauty of its colour; yet though they are conspicuous in regard to the colours and shape of their flowers, they are no ways remarkable for smell, such as the magnolia is; for they have little or no smell at all. So equally and justly does nature distribute her gifts; no part of the creation has them all, each has its own, and none is absolutely without a share of them.

May 30th. The Moravian brethren, who arrived in great numbers from Europe at New York, in May, brought two converted Greenlanders with them. The Moravians who were already settled in America, immediately sent some of their brethren from Philadelphia to the new comers, in order to welcome them. Among these deputies were two North American Indians, who had been converted to their doctrine, and likewise two South American Indians, from Surinam. These three kinds of converted Indians accordingly met at New York. I had no opportunity of seeing them; but all those who had seen them, and whom I conversed with, thought that they had plainly perceived a similarity in their features and shape, the Greenlanders being only somewhat smaller. They concluded from hence that all these three kinds of Americans were the posterity of one and the same descendant of Noah, or that they were perhaps yet more nearly related. How far their guesses are to be relied upon I cannot determine.

Ripe cherries were now already pretty common, and consequently cheap.

Yams are a species of roots which are cultivated in the hottest parts of America, for eating as we do potatoes. It has not yet been attempted to plant them here, and they are brought from the West Indies in ships; therefore they are reckoned a rarity here,

and

and as such I ate them at Dr. Franklin's to-day. They are white, and taste like common potatoes, but not quite so agreeable; and I think it would not be worth while to plant them in Sweden, though they might bear the climate. The plant these roots belong to is the *dioscorea alata*.

The inhabitants make plenty of cheese: they are not reckoned so good as English cheese: however, some take them to be full as good when old; and so they seemed to me. A man from Boston, in New England, told me, that they made very good cheese there: but they take care to keep the cattle from salt water, especially those who live near the sea coasts; for it has been found that the cheese will not become so good when the cows graze near salt water as it will when they have fresh water. This, however, wants nearer examination, in my opinion.

May 31st. About noon I left Philadelphia, and went on board a small yacht, which sails continually up and down upon the river Delaware, between Trenton and Philadelphia. We sailed up the river with fair wind and weather. Sturgeons leaped often a fathom into the air. We saw them continuing this exercise all day, till we came to Trenton. The banks on the Pennsylvania side were low; and those on the New Jersey side steep and sandy, but not very high. On both sides were perceived forests of tall trees, with deciduous leaves.

During the course of this month the forenoon was always calm; but immediately after noon it began to blow gently, and sometimes pretty strongly. This morning was likewise fair, and in the afternoon it was cloudy, but did not rain.

We saw some small houses near the shore, in the woods; and now and then a good house built of stone. The river now decreased visibly in breadth. About three o'clock this afternoon we passed Burlington.

Burlington, the chief town in the province of New Jersey, and the residence of the governor, is but a small town, about twenty miles from Philadelphia, on the eastern side of the Delaware. The houses were chiefly built of stone, though they stood far distant from each other. The town has a good situation, since ships of considerable burthen can sail close up to it: but Philadelphia prevents its carrying on an extensive trade; for the proprietors of that place* have granted it great immunities, by which it is increased so as to swallow all the trade of the adjacent towns. The house of the governor at Burlington is but a small one: it is built of stone, close by the river side, and is the first building in the town as you come from Philadelphia. It is observed, that about the full moons, when the tides are highest, and the high water at Cape Hopen comes at nine o'clock in the morning, it will be at Chester, on the river Delaware, about ten minutes after one o'clock; at Philadelphia, about ten minutes after two o'clock; and at Burlington, about ten minutes after three o'clock; for the tide in the river Delaware comes quite up to Trenton.

The banks of the river were now chiefly high and steep on the side of New Jersey, consisting of a pale brick-coloured soil. On the Pennsylvania side they were gently sloping, and consisted of a blackish rich mould, mixed with particles of glimmer (mica). On the New Jersey side appeared some firs; but seldom on the other, except in a few places where they were accidentally brought over from New Jersey.

Towards night, after the tide had begun to ebb, and the wind was quite subsided, we could not proceed, but dropped our anchor about seven miles from Trenton, and passed the night there. The woods were full of fireflies, (*lampyris*) which flew like sparks of fire between the trees, and sometimes across the river. In the marshes, the

* William Penn, Esq. and his heirs.

bullfrogs now and then began their hideous roaring; and more than a hundred of them roared together. The whip-poor-will, or goat-sucker, was likewise heard every where.

June 1st. We continued our voyage this morning after the rain was over. The river Delaware was very narrow here, and the banks the same as we found them yesterday, after we had passed Burlington. About eight o'clock in the morning we arrived at Trenton.

June 2nd. This morning we left Trenton, and proceeded towards New York. The country I have described before. The fields were sown with wheat, rye, maize, oats, hemp, and flax. In several places we saw very large pieces of ground with hemp.

We saw abundance of chestnut-trees in the woods. They often stood in excessive poor ground, which was neither too dry nor too wet.

Tulip-trees did not appear on the road; but the people said there were some in the woods.

The beaver-tree (*magnolia glauca*) grows in the swamps. It was now in flower, and the fragrant of its blossoms had so perfumed the air that one could enjoy it before one approached the swamps; and this fine smell likewise shewed that a beaver-tree was near us, though we often happened not to see it.

The phlox *glaberrima* grows abundantly in the woods, and cuts a fine figure with its red flowers. It grows in such soil here as in Europe is occupied by the *lychnis viscaria* and *lychnis dioica*, or read catchfly and campion. The phlox *maculata* grows abundantly in wet ground, and has fine red and odoriferous flowers. It grows on low meadows, where in Europe the meadow-pinks, or *lychnis flos cuculi*, would be met with. By adding to these flowers the *barbarea coccinea*, the *lobelia cardinalis*, and the *monarda didyma*, which grow wild in this country, they are undoubtedly altogether adorned with the finest red imaginable.

The sassafras-tree was abundant in the woods and near the inclosures.

The houses which we passed by were most of them wooden. In one place, I saw the people building a house with walls of mere clay, which is likewise employed in making ovens for baking.

Buckwheat was already coming up in several places. We saw single plants of it all day in the woods and in the fields, but always by the side of the road; from whence it may be concluded that they spring up from lost and scattered seeds.

Late this evening we arrived at New Brunswick.

June the 3rd. At noon we went on board a yacht bound for New York, and sailed down the river, which had at first pretty high and steep banks of red sand-stone on each side, which I have mentioned before. Now and then there was a farm-house on the high shore. As we came lower down, we saw on both sides great fields and meadows close up to the water. We could not sail at random with the yacht; for the river was often shallow in some places and sometimes in the very middle. For that purpose, the course which we were to take was marked out by branches with leaves on them. At last we got into the sea, which bounded our prospect on the south; but on the other side, we were continually in sight of land at some distance. On coming to the mouth of the river, we had a choice of two roads to New York, viz. either within the Staten Island, or without it. The inhabitants are determined in their choice by the weather; for when it is stormy and cloudy, or dark, they do not venture to sail without, where the sea itself communicates. We took that course now, it being very pleasant weather; and though we struck on the sands once or twice, yet we got loose again, and arrived at New York about nine o'clock.

June 4th. I found vines in several gardens, got from the old countries. They bear annually a quantity of excellent grapes. When the winters are very severe they are killed by the frost, and die quite to the ground; but the next spring new shoots spring up from the root.

Strawberries were now sold in abundance about the town every day. An Englishman from Jamaica asserted, that in that island there were no strawberries. The snakes are very fond of strawberries. Those which they had here were as good as the Swedish and Finland ones.

Red clover was sown in several places on the hills without the town. The country people were now employed in mowing the meadows. Some were already mown; and the dry clover was put under cover, in order to be carried away the first opportunity.

Cherry-trees were planted in great quantities before the farm-houses, and along the high-roads, from Philadelphia to New Brunswick; but behind that place they became more scarce. On coming to Staten Island, in the province of New York, I found them very common again, near the gardens. Here are not so many varieties of cherries as there are in Pennsylvania. I seldom saw any of the black sweet cherries * at New York; but commonly the four red ones. All travellers are allowed to pluck ripe fruit as they pass by. Between New Brunswick and Staten Island, are a few cherry-gardens; but proportionally more orchards, with apple-trees.

June 6th. Several gentlemen and merchants, between fifty and sixty years of age, asserted, that during their life they had plainly found several kinds of fish decrease in number every year; and that they could not get near so many fish now as they could formerly.

Rum, a brandy prepared from the sugar-canes, and in great use with all the English North American colonies, is reckoned much wholesomer than brandy, made from wine or corn †. In confirmation of this opinion, they say, that if you put a piece of fresh meat into rum, and another into brandy, and leave them there for some months, that in the rum will keep as it was, but that in the brandy will be quite eaten, and full of holes. But this experiment does not seem a very accurate one to me. Major Roderfort told me, that being upon the Canada expedition, he had observed, that such of his men as drank brandy for some time died of it; but those who drank rum were not hurt, though they got drunk with it every day, and oftener than the others.

Long Island is the name of an island opposite the town of New York, in the sea. The northern part of the island is much more fertile than the southern. Formerly there lived a number of Indians on this island; and there are yet some, which however decrease in number every year, because they leave the island. The soil of the southern part of the island is very poor; but this deficiency is made up by a vast quantity of oysters, lobsters, crabs, several kinds of fish, and numbers of water-fowl, all which are there far more abundant than on the northern shores of the island. Therefore the Indians formerly chose the southern part to live in, because they subsisted on oysters, and other productions of the sea. When the tide is out it is very easy to fill a whole cart with oysters, which have been driven on shore by one flood. The island is strewed

* Commonly called black-heart cherries.

† That rum is among the spirituous liquors less noxious than any one of the rest, is chiefly owing to the balsamic quality it gets from the sugar, which corrects the styptic quality all kinds of brandy and spirituous liquors have. The older the rum is, and the longer it has been kept in a great cask, the more is its stypticity corrected. All which has been lately proved by the clearest experiments, explained and deducted from the most indisputable principles of chemistry, in a pamphlet written by that able chemist Mr. Dossie. F.

with oyster-shells and other shells, which the Indians left there; these shells serve now for good manure for the fields. The southern part of the island is turned into meadows, and the northern part into fields. The winter is more constant on the northern part, and the snow in spring lies longer there than on the southern part. The people are very fertile here, and commonly tall and strong.

June 10th. At noon we left New York, and sailed up the river Hudson, in a yacht bound for Albany. All this afternoon we saw a whole fleet of little boats returning from New York, whither they had brought provisions and other goods for sale, which on account of the extensive commerce of this town, and the great number of its inhabitants, go off very well. The river Hudson runs from north to south here, except some high pieces of land which sometimes project far into it, and alter its direction; its breadth at the mouth is reckoned about a mile and a quarter. Some porpoises played and tumbled in the river. The eastern shore, or the New York side, was at first very steep and high; but the western was very sloping and covered with woods. There appeared farm-houses on both sides, surrounded with corn-fields. The ground of which the steep shores consisted was of a pale brick colour, and some little rocks of a grey sand-stone were seen here and there. About ten or twelve miles from New York, the western shore appears quite different from what it was before; it consists of steep mountains with perpendicular sides towards the river, and they are exactly like the steep sides of the mountains of Hall and Hunneburg in West Gothland. Sometimes a rock projects like the salient angle of a bastion: the tops of these mountains are covered with oaks, and other wood; a number of stones of all sizes lay along the shore, having rolled down from the mountains.

These high and steep mountains continue for some English miles on the western shore; but on the eastern side the land is high, and sometimes diversified with hills and vallies, which are commonly covered with deciduous trees, amongst which there appears a farm now and then in a glade. The hills are covered with stones in some places. About twelve miles from New York we saw sturgeons* (*acipenser sturio*), leaping up out of the water, and on the whole passage we met with porpoises in the river. As we proceeded we found the eastern banks of the river very much cultivated; and a number of pretty farms, surrounded with orchards and fine corn-fields, presented themselves to our view. About twenty-two miles from New York the high mountains which I have before mentioned left us, and made as it were a high ridge here from east to west quite across the country. This altered the face of the country on the western shore of the river: from mountainous, it became interspersed with little vallies and round hillocks, which were scarce inhabited at all; but the eastern shore continued to afford us a delightful prospect. After sailing a little while in the night, we cast our anchor and lay here till the morning, especially as the tide was ebbing with great force.

June 11th. This morning we continued our voyage up the river, with the tide and a faint breeze. We now passed the Highland mountains, which were to the east of us; they consist of a grey sand-stone, are very high and pretty steep, and covered with deciduous trees, and likewise with firs and red cedars. The western shore was full of rocks, which however did not come up to the height of the mountains on the opposite shore; the tops of these eastern mountains were cut off from our sight by a thick fog which surrounded them. The country was unfit for cultivation, being so full of rocks,

* The New York sturgeons which I saw this year brought over, had short blunt noses, in which particular they are different from the English ones, which have long noses. F.

and accordingly we saw no farms. The distance from these mountains to New York is computed at thirty-six English miles.

A thick fog now rose up from the high mountains. For the space of some English miles we had hills and rocks on the western banks of the river; and a change of lesser and greater mountains and vallies covered with young firs, red cedars, and oaks, on the eastern side. The hills close to the river side are commonly low, but their height increases as they are further from the river. Afterwards we saw, for some miles together, nothing but high round mountains and vallies, both covered with woods; the vallies are in reality nothing but low rocks, and stand perpendicular towards the river in many places. The breadth of the river is sometimes two or three musket-shot, but commonly not above one; every now and then we saw several kinds of fish leaping out of the water. The wind vanished away about ten o'clock in the morning, and forced us to get forwards with our oars, the tide being almost spent.

The water in the river has here no more a brackish taste; yet I was told that the tide, especially when the wind is south, sometimes carries the salt water up higher with it. The colour of the water was likewise altered, for it appeared darker here than before. To account for the first origin of rivers is very difficult, if not wholly impossible; some rivers may have come from a great reservoir of water, which being considerably increased by heavy falls of rain or other circumstances, passed its old bounds and flowed to the lower countries, through the places where it met with the least opposition. This is perhaps the reason why some rivers run in so many bendings equally through fields of soft earth, as likewise there, where mountains, rocks, and stones, divert their passage. However, it seems that some rivers derive their first origin from the creation itself, and that Providence then pointed out their course; for their existence can, in all probability, not be owing to the accidental eruption of water alone. Among these rivers we may rank the river Hudson: I was surprised on seeing its course, and the variety of its shores. It takes its rise a good way above Albany, and descends to New York, in a direct line from north to south, which is a distance of about a hundred and sixty English miles, and perhaps more; for the little bendings which it makes are of no signification. In many places between New York and Albany are ridges of high mountains running west and east. But it is remarkable that they go on undisturbed till they come to the river Hudson, which cuts directly across them, and frequently their sides stand perpendicular towards the river. There is an opening left in the chain of mountains, as broad as the river commonly is, for it to pass through, and the mountains go on as before, on the other side, in the same direction. It is likewise remarkable that the river in such places where it passes through the mountains is as deep, and often deeper than in the other places. The perpendicular rocks on the sides of the river are surprising, and it appears that if no passages had been opened by Providence, for the river to pass through, the mountains in the upper part of the country would have been inundated, since these mountains, like so many dykes, would have hindered the water from going on. Quere, Why does this river go on in a direct line for so considerable a distance? Why do the many passages, through which the river flows across the mountains, lie under the same meridian? Why are water-falls near some of these passages, or at least shallow water with a rocky ground?

We now perceived excessive high and steep mountains on both sides of the river, which echoed back each sound we uttered. Yet notwithstanding they were so high and steep, they were covered with small trees.

The Blue Mountains, which reared their towering tops above all the other mountains, were now seen before us, towards north, but at a great distance.

The

The country began here to look more cultivated, and less mountainous.

The last of the high western mountains is called Butterhill, after which the country between the mountains grows more spacious. The farms became very numerous, and we had a prospect of many corn-fields, between the hills: before we passed these hills we had the wind in our face, and we could only get forward by tacking, which went very slow, as the river was hardly a musket-shot in breadth. Afterwards we cast anchor, because we had both wind and tide against us.

Whilst we waited for the return of tide, and the change of wind, we went on shore.

The saffra-tree (*laurus saffra*) and the chestnut-tree grows here in great abundance. I found the tulip-tree (*liriodendron tulipifera*) in some parts of the wood, as likewise the *kalmia latifolia*, which was now in full blossom, though the flowers were already withering.

Some time after noon the wind arose from south-west, which being a fair wind, we weighed anchor, and continued our voyage. The place where we lay at anchor was just the end of those steep and amazing high mountains: their height is very amazing; they consist of grey rock-stone, and close to them on the shores lay a vast number of little stones. As soon as we had passed these mountains, the country became clearer of mountains, and higher. The river likewise increased in breadth, so as to be near an English mile broad. After sailing for some time, we found no more mountains along the river; but on the eastern side goes a high chain of mountains to the north-east, whose sides are covered with woods up to one-half of their height. The summits however are quite barren, for I suppose that nothing would grow there, on account of the great degree of heat*, dryness, and the violence of the wind, to which that part is exposed. The eastern side of the river is much more cultivated than the western, where we seldom saw a house, the land being covered with woods, though it is in general very level. About fifty-six English miles from New York the country is not very high; yet it is every where covered with woods, except some new farms which were scattered here and there. The high mountains which we left in the afternoon, now appeared above the woods and the country. These mountains which were called the Highlands, did not project more north than the other, in the place where we anchored. Their sides (not those towards the river) were seldom perpendicular, but sloping, so that one could climb up to the top, though not without difficulty.

On several high grounds near the river, the people burnt lime. The master of the yacht told me, that they break a fine blueish grey lime-stone in the high grounds along both sides of the river, for the space of some English miles, and burn lime of it. But at some miles distance there is no more lime-stone, and they find also none on the banks till they come to Albany.

We passed by a little neck of land, which projected on the western side of the river, and was called Dance. The name of this place is said to derive its origin from a festival which the Dutch celebrated here in former times, and at which they danced and diverted themselves; but once there came a number of Indians, who killed them all.

We cast anchor late at night, because the wind ceased and the tide was ebbing. The depth of the river is twelve fathoms here.

* Mr. Kalm was certainly mistaken by thinking the summits of these mountains without wood, on account of the great degree of heat: for it is a general notion founded on experience, that the sun operates not so much on the tops of mountains, as in plains or vallies, and the cold often hinders the increase of wood on the summits of high mountains. F.

The fire-flies passed the river in numbers at night, and sometimes settled upon the rigging.

June 12th. This morning we proceeded with the tide, but against the wind. The river was here a musket-shot broad. The country in general is low on both sides, consisting of low rocks and stony fields, which are however covered with woods. It is so rocky, stony, and poor, that nobody can settle in it or inhabit it, there being no spot of ground fit for a corn-field. The country continued to have the same appearance for the space of some miles, and we never perceived one settlement. At eleven o'clock this morning we came to a little island, which lies in the middle of the river, and is said to be half-way between New York and Albany. The shores are still low, stony, and rocky, as before. But at a greater distance we saw high mountains, covered with woods, chiefly on the western shore, raising their tops above the rest of the country: and still further off, the blue mountains rose up above them. Towards noon it was quite calm, and we went on very slow. Here the land is well cultivated, especially on the eastern shore, and full of great corn-fields; yet the soil seemed sandy. Several villages lay on the eastern side, and one of them called Strasburg, was inhabited by a number of Germans. To the west we saw several cultivated places. The blue mountains are very plainly to be seen here. They appear through the clouds, and tower above all other mountains. The river is full an English mile broad opposite Strasburg.

They make use of a yellow agaricus, or mushroom, which grows on maple-trees, for tinder; that which is found on the red-flowering maple (*acer rubrum*) is reckoned the best, and next in goodness is that of the sugar-maple (*acer saccharinum*), which is sometimes reckoned as good as the former.

Rhinbeck is a place at some distance from Strasburg, further off from the river. It is inhabited by many Germans, who have a church there.

At two in the afternoon it began again to blow from the south, which enabled us to proceed. The country on the eastern side is high, and consists of a well cultivated soil. We had fine corn-fields, pretty farms, and good orchards in view. The western shore is likewise somewhat high, but still covered with woods, and we now and then, though seldom, saw one or two little settlements. The river is above an English mile broad in most places, and comes in a strait line from the north, so that we could not sometimes follow it with our eye.

June 13th. The wind favoured our voyage during the whole night, so that I had no opportunity of observing the nature of the country. This morning at five o'clock we were but nine English miles from Albany. The country on both sides the river is low, and covered with woods, excepting a few little scattered settlements. Under the higher shores of the river are wet meadows, covered with sword-grass (*carex*), and they formed several little islands. We saw no mountains; and hastened towards Albany. The land on both sides of the river is chiefly low, and more carefully cultivated as we came nearer to Albany.

As to the houses which we saw, some were of wood, others of stone. The river is seldom above a musket-shot broad, and in several parts of it are sands, which require great experience for governing the yachts. At eight o'clock in the morning we arrived at Albany.

All the yachts which ply between Albany and New York, belong to Albany. They go up and down the river Hudson, as long as it is open and free from ice. They bring from Albany boards or planks, and all sorts of timber, flour, pease, and furs, which they get from the Indians, or which are smuggled from the French. They come home almost

almost empty, and only bring a few merchandizes with them, among which rum is the chief. This last is absolutely necessary to the inhabitants of Albany; they cheat the Indians in the fur trade with it; for when the Indians are drunk, they will leave it to the Albanians to fix the price of the furs. The yachts are pretty large, and have a good cabin, in which the passengers can be very commodiously lodged. They are commonly built of red cedar, or of white oak. Frequently, the bottom consists of white oak, and the sides of red cedar, because the latter withstands putrefaction much longer than the former. The red cedar is likewise apt to split when it is struck against any thing, and the river Hudson is in many parts full of sands and rocks, against which the keel of the yacht sometimes hits; therefore they choose white oak for the bottom, as being the softer wood, and not splitting so easily: and the bottom being continually under water, is not so much exposed to putrefaction, and holds out longer.

The canoes which the yachts have along with them are made of a single piece of wood, hollowed out; they are sharp on both ends, frequently three or four fathoms long, and as broad as the thickness of the wood will allow. The people in it do not row sitting, but commonly a fellow stands at each end, with a short oar in his hand with which he governs and brings the canoe forwards. Those which are made here at Albany, are commonly of the white pine; they can do service for eight or twelve years, especially if they be tarred and painted. At Albany they make them of the white pine, since there is no other wood fit for them; at New York they are made of the tulip-tree, and in other parts they are made of red or white cedars: but both these trees are so small, in the neighbourhood of Albany, that they are unfit for canoes; there are no seats in the canoes, for if they had any, they would be more liable to be overset, as one could not keep the equilibrium so well.

Battoes* are another kind of boats, which are much in use in Albany: they are made of boards of white pine; the bottom is flat that they may row the better in shallow water; they are sharp at both ends, and somewhat higher towards the end than in the middle. They have seats in them, and are rowed as common boats. They are long, yet not all alike, commonly three, and sometimes four fathoms long. The height from the bottom to the top of the board (for the sides stand almost perpendicular) is from twenty inches to two feet, and the breadth in the middle about a yard and six inches. They are chiefly made use of for carrying goods, by means of the rivers, to the Indians; that is, when those rivers are open enough for the battoes to pass through, and when they need not be carried by land a great way. The boats made of the bark of trees, break easily by knocking against a stone, and the canoes cannot carry a great cargo, and are easily overset; the battoes are therefore preferable to them both. I saw no boats here like those in Sweden, and other parts of Europe.

The frost does frequently a great deal of damage at Albany. There is hardly a month in summer during which a frost does not happen. The spring comes very late, and in April and May are numerous cold nights, which frequently kill the flowers of trees and kitchen herbs. It was feared that the blossoms of the apple-trees had been so severely damaged by the frost last May, that next autumn there would be but very few apples. The oak blossoms are very often killed by the frost in the woods. The autumn here is of long continuance, with warm days and nights. However, the cold

* From the French bateaux (boats).

nights commonly commence towards the end of September, and are frequent in October. The people are forced to keep their cattle in stables from the middle of November till March or April, and must find them hay during that time *.

During summer the wind blows commonly from the south, and brings a great drought along with it. Sometimes it rains a little, and as soon as it has rained the wind veers to north-west, blowing for several days from that point, and then returning to the south. I have had frequent opportunities of seeing this change of wind happen very exactly, both this year and the following.

June 15th. The enclosures were made of boards of fir-wood, of which there is abundance in the extensive woods, and many saw-mills to cut it into boards.

The several sorts of apple-trees grow very well here, and bear as fine fruit as in any other part of North America. Each farm has a large orchard. They have some apples here, which are very large, and very palatable; they are sent to New York, and other places as a rarity. They make excellent cyder in autumn, in the country round Albany.

All the kinds of cherry-trees, which have been planted here, succeed very well.

Pear-trees do not succeed here. This was complained of in many other parts of North America. But I fear that they do not take sufficient care in the management and planting of them; for I had seen fine pears in several parts of North America.

Peach-trees have often been planted here, and never would succeed well. This was attributed to a worm which lives in the ground, and eats through the root, so that the tree dies. Perhaps the severity of the winter contributes much to it.

They plant no other fruit-trees at Albany besides these I have mentioned.

They sow as much hemp and flax here as they want for home consumption.

They sow maize in great abundance: a loose soil is reckoned the best for this purpose; for it will not grow in clay: from half a bushel they reap a hundred bushels. They reckon maize a very good kind of corn, because the shoots recovers after being hurt by the frost. They have had examples here of the shoots dying twice in spring, to the very ground, and yet they shot up again afterwards, and afforded an excellent crop. Maize has likewise the advantage of standing much longer against a drought than wheat. The larger sort of maize which is commonly sown here, ripens in September.

They sow wheat in the neighbourhood of Albany, with great advantage. From one bushel they get twelve sometimes; if the soil be good, they get twenty bushels. If their crop amounts only to ten bushels from one, they think it very trifling. The inhabitants of the country round Albany are Dutch and Germans. The Germans live in several great villages, and sow great quantities of wheat, which is brought to Albany; and from thence they sent many yachts laden with flour to New York. The wheat flour from Albany is reckoned the best in all North America, except that from Sopus or King's Town, a place between Albany and New York. All the bread in Albany is made of wheat. At New York they pay the Albany flour with several shillings more per hundred weight than that from other places.

Rye is likewise sown here, but not so generally as wheat.

They do not sow much barley here, because they do not reckon the profits very great. Wheat is so plentiful that they make malt of it. In the neighbourhood of New York I saw great fields sown with barley.

* The reader must reckon all this according to the old stile.

They do not sow more oats than are necessary for their horses.

The Dutch and Germans who live hereabouts, sow pease in great abundance; they succeed very well, and are annually carried to New York, in great quantities. They have been free from insects for a considerable time; but of late years the same beetles which destroy the pease in Pennsylvania, New Jersey, and the lower parts of the province of New York, have likewise appeared abundant among the pease here. It is a real loss to this town, and to the other parts of North America, which used to get pease from hence for their own consumption, and that of their sailors. It had been found that if they procured good pease from Albany, and sowed them near King's Town, or the lower part of the province of New York, they succeeded very well the first year, but were so full of worms the second, and following years, that nobody could or would eat them. Some people put ashes into the pot, among the pease, when they will not boil, or soften well; but whether this is wholesome and agreeable to the palate, I do not know.

Potatoes are generally planted. Some people preferred ashes to sand for keeping them in during winter.

The Bermuda potatoes (*convolvulus batatas*) have likewise been planted here, and succeed pretty well. The greatest difficulty is to keep them during winter; for they generally rot in that season.

The humming-bird (*trochilus colubris*) comes to this place sometimes; but it is rather a scarce bird.

The shingles with which the houses are covered are made of the white pine, which is reckoned as good and as durable, and sometimes better, than the white cedar (*cupressus thyoides*). The white pine is found abundant here, in such places where common pines grow in Europe. I have never seen them in the lower parts of the province of New York, nor in New Jersey and Pennsylvania. They saw a vast quantity of deal from the white pine on this side of Albany, which are brought down to New York, and from thence exported.

The woods abound with vines, which likewise grow on the steep banks of the river in surprising quantities. They climbed to the tops of trees on the bank, and bent them by their weight; but where they found no trees, they hung down along the steep shores, and covered them entirely. The grapes are eaten after the frost has attacked them; for they are too sour before. They are not much used any other way.

The vast woods and uninhabited grounds between Albany and Canada contain immense swarms of gnats, which annoy the travellers. To be in some measure secured against these insects, some besmear their face with butter or grease; for the gnats do not like to settle on greasy places. The great heat makes boots very uneasy; but to prevent the gnats from stinging the legs, they wrap some paper round them, under the stockings. Some travellers wear caps which cover the whole face, and have some gauze before their eyes. At night they lie in tents, if they can carry any with them; and make a great fire at the entrance, by the smoke of which the gnats are driven away.

The porpoises seldom go higher up the river Hudson than the salt water goes; after that, the sturgeons fill their place. It has however sometimes happened, that porpoises have gone quite up to Albany.

The fire-flies (*lampyris*) which are the same that are so common in Pennsylvania during summer, are here seen in abundance every night. They fly up and down in the streets of this town. They come into the houses, if the doors and windows are open.

several

Several of the Penſylvanian trees are not to be met with in theſe woods, viz.

Magnolia glauca, the beaver-tree.

Nyſſa aquatica, the tupelo-tree.

Liquidambar ſtyraciflua, the ſweet-gum tree.

Dioſpyros Virginiana, the perſimon.

Liriodendron tulipifera, the tulip-tree.

Juglans nigra, the black walnut-tree.

Quercus——, the ſwamp oak.

Cercis Canadenſis, the fallad-tree.

Robinia pſeudacacia, the locuſt-tree.

Gleditſia triacanthos, the honey-locuſt-tree.

Annona muricata, the papaw-tree.

Celtis occidentalis, the nettle-tree ; and a number of ſhrubs, which are never found here.

The more northerly ſituation of the place, the height of the blue mountains, and the courſe of the rivers, which flow here ſouthward into the ſea, and accordingly carry the ſeeds of plants from north to ſouth, and not the contrary way, are chiefly the cauſes that ſeveral plants which grow in Penſylvania cannot be found here.

This afternoon I went to ſee an iſland which lies in the middle of the river, about a mile below the town. This iſland is an Engliſh mile long, and not above a quarter of a mile broad. It is almoſt entirely turned into corn-fields ; and is inhabited by a ſingle planter, who, beſides poſſeſſing this iſland, is the owner of two more. Here we ſaw no woods, except a few trees which were left round the iſland on the ſhore, and formed as it were a tall and great hedge. The red maple (*acer rubrum*) grows in abundance in ſeveral places. Its leaves are white or ſilvery on the under ſides, and when agitated by the wind, they make the tree appear as if it was full of white flowers. The water-beech (*platanus occidentalis*) grows to a great height, and is one of the moſt ſhady trees here. The water-poplar* is the moſt common tree hereabouts, grows exceedingly well on the ſhores of the river, and is as tall as the tallſt of our aſps. In ſummer it affords the beſt ſhade for men and cattle againſt the ſcorching heat. On the banks of rivers and lakes it is one of the moſt uſeful trees, becauſe it holds the ſoil by its extenſive branched roots, and prevents the water from waſhing it away. The water-beech and the elm-tree (*ulmus*) ſerve the ſame purpoſe. The wild prune-trees were plentiful here, and were full of unripe fruit : its wood is not made uſe of ; but its fruit is eaten. Sumach (*rhus glabra*) is plentiful here ; as alſo the wild vines, which climb up the trees, and creep along the high ſhores of the river. I was told that the grapes ripen very late, though they were already pretty large.

The American elm-tree (*ulmus Americana*) formed ſeveral high hedges. The ſoil of this iſland is a rich mould, mixed with ſand, which is chiefly employed in maize plantations. There were likewiſe large fields of potatoes. The whole iſland was leaſed for one hundred pounds of New York currency. The perſon who had taken the leaſe again let ſome greater and ſome ſmaller lots of ground to the inhabitants of Albany, for making kitchen gardens of, and by that means reimbursed himſelf. Portulack (*portulaca oleracea*) grows ſpontaneouſly here in great abundance, and looks very well.

* *Populus glandulis variis baſi foliorum adnexis, foliis cordato-deltoidibus, acuminatis, ferrato-anguloſis, utrinque glabris.* — An *populus heterophylla* Linnæi ?

June 20th. The tide in the river Hudson goes about eight or ten English miles above Albany, and consequently runs one hundred and fifty-six English miles from the sea. In spring, when the snow melts, there is hardly any flowing near this town; for the great quantity of water which comes from the mountains during that season occasions a continual ebbing. This likewise happens after heavy rains.

The cold is generally reckoned very severe here. The ice in the river Hudson is commonly three or four feet thick. On the 3d of April some of the inhabitants crossed the river with six pair of horses. The ice commonly dissolves about the end of March or beginning of April. Great pieces of ice come down about that time, which sometimes carry with them the houses that stand close to the shore. The water is very high at that time in the river, because the ice stops sometimes, and sticks in places where the river is narrow. The water has been often observed to rise three fathoms higher than it commonly is in summer. The ground is frozen here in winter to the depth of three, four, or five feet. On the 16th of November the yachts are put up, and about the beginning or middle of April they are in motion again.

The water of several wells in this town was very cool about this time; but had a kind of acid taste, which was not very agreeable. On a nearer examination, I found an abundance of little insects in it, which were probably monoculi. Their length was different; some were a geometrical line and an half, others two, and others four lines long: they were very narrow, and of a pale colour. The head was blacker and thicker than the other parts of the body, and about the size of a pin's head. The tail was divided into two branches, and each branch terminated in a little black globule. When these insects swim, they proceed in crooked or undulated lines, almost like tadpoles. I poured some of this water into a bowl, and put near a fourth part of rum to it. The monoculi, instead of being affected with it, swam about as briskly as they had done in the water. This shews, that if one makes punch with this water, it must be very strong to kill the monoculi. I think this water is not very wholesome for people who are not used to it, though the inhabitants of Albany, who drink it every day, say, they do not feel the least inconvenience from it. I have been several times obliged to drink water here, in which I have plainly seen monoculi swimming; but I generally felt the next day somewhat like a pea in my throat, or as if I had a swelling there; and this continued for above a week. I felt such swellings this year, both at Albany and in other parts. My servant, Yungstroem, likewise got a great pain in his breast, and a sensation as from a swelling, after drinking water with monoculi in it; but whether these insects occasioned it, or whether it came from some other cause, I cannot ascertain. However, I have always endeavoured as much as possible to do without such water as had monoculi in it. I have found monoculi in very cold water taken from the deepest wells, in different parts of this country. Perhaps many of our diseases arise from waters of this kind, which we do not sufficiently examine. I have frequently observed abundance of minute insects in water, which has been remarkable for its clearness. Almost each house in Albany has its well, the water of which is applied to common use; but for tea, brewing, and washing, they commonly take the water of the river Hudson, which flows close by the town. This water is generally quite muddy, and very warm in summer; and, on that account, it is kept in cellars, in order that the slime may subside, and that the water may cool a little.

We lodged with a gunsmith, who told us, that the best charcoals for the forge were made of the black pine. The next in goodness, in his opinion, were charcoals made of the beech-tree.

The

The best and dearest stocks for his muskets were made of the wood of the wild cherry-tree; and next to these he valued those of the red maple most. They scarce make use of any other wood for this purpose. The black walnut-tree affords excellent wood for stocks; but it does not grow in the neighbourhood of Albany.

June 21st. Next to the town of New York, Albany is the principal town, or at least, the most wealthy, in the province of New York. It is situated on the declivity of a hill, close to the western shore of the river Hudson, about one hundred and forty-six English miles from New York. The town extends along the river, which flows here from N.N.E. to S.S.W. The high mountains in the west, above the town, bound the prospect on that side. There are two churches in Albany, an English one and a Dutch one. The Dutch church stands at some distance from the river, on the east side of the market. It is built of stone; and in the middle it has a small steeple, with a bell. It has but one minister, who preaches twice every Sunday. The English church is situated on the hill, at the west end of the market, directly under the fort. It is likewise built of stone, but has no steeple. There was no service at this church at this time, because they had no minister; and all the people understood Dutch, the garrison excepted. The minister of this church has a settled income of one hundred pounds sterling, which he gets from England. The town-hall lies to the southward of the Dutch church, close by the river side. It is a fine building of stone, three stories high. It has a small tower or steeple, with a bell, and a gilt ball and vane at the top of it.

The houses in this town are very neat, and partly built with stones covered with shingles of the white pine. Some are slated with tiles from Holland, because the clay of this neighbourhood is not reckoned fit for tiles. Most of the houses are built in the old way, with the gable-end towards the street; a few excepted, which were lately built in the manner now used. A great number of houses were built like those of New Brunswick, which I have described; the gable-end being built, towards the street, of bricks, and all the other walls of planks. The outside of the houses is never covered with lime or mortar, nor have I seen it practised in any North American towns which I have visited; and the walls do not seem to be damaged by the air. The gutters on the roofs reach almost to the middle of the street. This preserves the walls from being damaged by the rain, but is extremely disagreeable in rainy weather for the people in the streets, there being hardly any means of avoiding the water from the gutters. The street-doors are generally in the middle of the houses; and on both sides are seats, on which, during fair weather, the people spend almost the whole day, especially on those which are in the shadow of the houses. In the evening these seats are covered with people of both sexes; but this is rather troublesome, as those who pass by are obliged to greet every body, unless they will shock the politeness of the inhabitants of this town. The streets are broad, and some of them are paved; in some parts they are lined with trees; the long streets are almost parallel to the river, and the others intersect them at right angles. The street which goes between the two churches is five times broader than the others, and serves as a market-place. The streets upon the whole are very dirty, because the people leave their cattle in them during the summer nights. There are two market-places in the town, to which the country people resort twice a week.

The fort lies higher than any other building, on a high steep hill on the west side of the town. It is a great building of stone, surrounded with high and thick walls; its situation is very bad, as it can only serve to keep off plundering parties, without being

able to sustain a siege. There are numerous high hills to the west of the fort, which command it, and from whence one may see all that is done within it. There is commonly an officer and a number of soldiers quartered in it. They say the fort contains a spring of water.

The situation of Albany is very advantageous in regard to trade. The river Hudson, which flows close by it, is from twelve to twenty feet deep. There is not yet any quay made for the better lading of the yachts, because the people feared it would suffer greatly, or be entirely carried away in spring by the ice, which then comes down the river; the vessels which are in use here may come pretty near the shore in order to be laden, and heavy goods are brought to them upon canoes tied together. Albany carries on a considerable commerce with New York, chiefly in furs, boards, wheat, flour, pease, several kinds of timber, &c. There is not a place in all the British colonies, the Hudson's Bay settlements excepted, where such quantities of furs and skins are bought of the Indians as at Albany. Most of the merchants in this town send a clerk or agent to Oswego, an English trading town upon the lake Ontario, to which the Indians resort with their furs. I intend to give a more minute account of this place in my journal for the year 1750. The merchants from Albany spend the whole summer at Oswego, and trade with many tribes of Indians who come to them with their goods. Many people have assured me, that the Indians are frequently cheated in disposing of their goods, especially when they are in liquor, and that sometimes they do not get one half of the value of their goods. I have been a witness to several transactions of this kind. The merchants of Albany glory in these tricks, and are highly pleased when they have given a poor Indian a greater portion of brandy than he can bear, and when they can after that get all his goods for mere trifles. The Indians often find, when they are sober again, that they have been cheated, they grumble somewhat, but are soon satisfied when they reflect that they have for once drank as much as they are able, of a liquor which they value beyond any thing else in the whole world, and they are quite insensible to their loss if they again get a draught of this nectar. Besides this trade at Oswego, a number of Indians come to Albany from several parts, especially from Canada; but from this latter place, they hardly bring any thing but beaver-skins. There is a great penalty in Canada for carrying furs to the English, that trade belonging to the French West India Company; notwithstanding which the French merchants in Canada carry on a considerable smuggling trade. They send their furs, by means of the Indians, to their correspondents at Albany, who purchase it at the price which they have fixed upon with the French merchants. The Indians take in return several kinds of cloth, and other goods, which may be got here at a lower rate than those which are sent to Canada from France.

The greater part of the merchants at Albany have extensive estates in the country, and a great deal of wood. If their estates have a little brook, they do not fail to erect a saw-mill upon it for sawing boards and planks, with which commodity many yachts go during the whole summer to New York, having scarce any other lading than boards.

Many people at Albany make the wampum of the Indians, which is their ornament and their money, by grinding some kinds of shells and muscles; this is a considerable profit to the inhabitants. I shall speak of this kind of money in the sequel. The extensive trade which the inhabitants of Albany carry on, and their sparing manner of life, in the Dutch way, contribute to the considerable wealth which many of them acquire.

The inhabitants of Albany and its environs are almost all Dutchmen. They speak Dutch, have Dutch preachers, and divine service is performed in that language: their manners are likewise quite Dutch; their dress is however like that of the English. It is well known that the first Europeans who settled in the province of New York were Dutchmen. During the time that they were the masters of this province, they possessed themselves of New Sweden*, of which they were jealous. However, the pleasure of possessing this conquered land and their own, was but of short duration; for towards the end of 1664, Sir Robert Carre, by order of King Charles the Second, went to New York, then New Amsterdam, and took it. Soon after Colonel Nichols went to Albany, which then bore the name of Fort Orange, and upon taking it, named it Albany, from the Duke of York's Scotch title. The Dutch inhabitants were allowed either to continue where they were, and, under the protection of the English, to enjoy all their former privileges, or to leave the country. The greater part of them chose to stay, and from them the Dutchmen are descended, who now live in the province of New York, and who possess the greatest and best estates in that province.

The avarice and selfishness of the inhabitants of Albany are very well known throughout all North America, by the English, by the French, and even by the Dutch, in the lower part of New York province. If a Jew, who understands the art of getting forward perfectly well, should settle amongst them, they would not fail to ruin him. For this reason nobody comes to this place without the most pressing necessity; and therefore I was asked in several places, what induced me to go to it, two years one after another. I likewise found that the judgment, which people formed of them, was not without foundation. For though they seldom see any strangers, (except those who go from the British colonies to Canada and back again) and one might therefore expect to find victuals and accommodation for travellers cheaper than in places where travellers always resort to, yet I experienced the contrary. I was here obliged to pay for every thing twice, thrice, and four times as dear as in any part of North America which I have passed through. If I wanted their assistance, I was obliged to pay them very well for it, and when I wanted to purchase any thing, or to be helped in some case or other, I could presently see what kind of blood ran into their veins; for they either fixed exorbitant prices for their services, or were very backward to assist me. Such was this people in general. However, there were some amongst them who equalled any in North America, or any where else, in politeness, equity, goodness, and readiness to serve and to oblige; but their number fell far short of that of the former. If I may be allowed to declare my conjectures, the origin of the inhabitants of Albany and its neighbourhood seems to me to be as follows. Whilst the Dutch possessed this country, and intended to people it, the government took up a pack of vagabonds, of which they intended to clear the country, and sent them along with a number of other settlers to this province. The vagabonds were sent far from the other colonists, upon the borders towards the Indians and other enemies, and a few honest families were persuaded to go with them, in order to keep them in bounds. I cannot any other way account for the difference between the inhabitants of Albany, and the other descendants of so respectable a nation as the Dutch, who are settled in the lower part of New York province. The latter are civil, obliging, just in the prices, and sincere; and though they are not ceremonious, yet they are well meaning and honest, and their promises are to be relied on.

* New Jersey and part of Pennsylvania were formerly comprised under this name.

The behaviour of the inhabitants of Albany, during the war between England and France, which was ended with the peace of Aix la Chapelle, has, among several other causes, contributed to make them the object of hatred in all the British colonies, but more especially in New England. For at the beginning of that war, when the Indians of both parties had received orders to commence hostilities, the French engaged theirs to attack the inhabitants of New England; which they faithfully executed, killing every body they met with, and carrying off whatever they found. During this time the people of Albany remained neutral, and carried on a great trade with the very Indians who murdered the inhabitants of New England. The plate, such as silver-spoons, bowls, cups, &c. of which the Indians robbed the houses in New England, was carried to Albany, for sale. The people of that town bought up these silver vessels, though the names of the owners were graven on many of them, and encouraged the Indians to get more of them, promising to pay them well, and whatever they would demand. This was afterwards interpreted by the inhabitants of New England, as if the Albanians encouraged the Indians to kill more of the people, who were in a manner their brothers, and who were subjects of the same crown. Upon the first news of this behaviour, which the Indians themselves spread in New England, the inhabitants of the latter province were greatly incensed, and threatened, that the first step they would take in another war, would be to burn Albany, and the adjacent parts. In the present war it would sufficiently appear how backward the other British provinces in America are in assisting Albany, and the neighbouring places, in case of an attack from the French or Indians*. The hatred which the English bear against the people, at Albany, is very great, but that of the Albanians against the English is carried to a ten times higher degree. This hatred has subsisted ever since the time when the English conquered this country, and is not yet extinguished, though they could never have got such advantages under the Dutch government, as they have obtained under that of the English. For, in a manner, their privileges are greater than those of Englishmen.

The inhabitants of Albany are much more sparing than the English. The meat which is served up is often insufficient to satisfy the stomach, and the bowl does not circulate so freely as amongst the English. The women are perfectly well acquainted with œconomy; they rise early, go to sleep very late, and are almost over-nice and cleanly in regard to the floor, which is frequently scoured several times in the week. The servants in the town are chiefly negroes. Some of the inhabitants wear their own hair, but it is very short, without a bag or queue, which are looked upon as the characteristics of Frenchmen; and as I wore my hair in a bag the first day I came here from Canada, I was surrounded with children, who called me Frenchman, and some of the boldest offered to pull at my French dress.

Their meat, and manner of dressing it, is very different from that of the English. Their breakfast is tea, commonly without milk. About thirty or forty years ago, tea was unknown to them, and they breakfasted either upon bread and butter, or bread and milk. They never put sugar into the cup, but take a small bit of it into their mouths whilst they drink. Along with the tea they eat bread and butter, with slices of hung beef. Coffee is not usual here; they breakfast generally about seven. Their dinner is butter-milk and bread, to which they sometimes add sugar, then it is a delicious dish for them; or fresh milk and bread; or boiled or roasted flesh. They sometimes make use of butter-milk instead of fresh milk, to boil a thin kind of porridge

* Mr. Kalm published this third volume just during the time of the last war. F.

with, which tastes very sour, but not disagreeable in hot weather. To each dinner they have a great salad, prepared with abundance of vinegar, and very little or no oil. They frequently eat butter-milk, bread, and salad, one mouthful after another. Their supper is generally bread and butter, and milk and bread. They sometimes eat cheese at breakfast and at dinner; it is not in slices, but scraped or rasped, so as to resemble coarse flour, which they pretend adds to the good taste of cheese. They commonly drink very small beer, or pure water.

The governor of New York often confers at Albany with the Indians of the Five Nations, or the Iroquese, (Mohawks, Senekas, Cayugaws, Onondagoes, and Onidoes) especially when they intend either to make war upon, or to continue a war against the French. Sometimes their deliberations likewise turn upon their conversion to the christian religion, and it appears by the answer of one of the Indian chiefs, or Sachems, to Governor Hunter, at a conference in this town, that the English do not pay so much attention to a work of so much consequence as the French do, and that they do not send such able men to instruct the Indians as they ought to do*. For after Governor Hunter had presented these Indians, by order of Queen Anne, with many clothes, and other presents, of which they were fond, he intended to convince them still more of Her Majesty's good-will, and care for them, by adding, that their good mother, the Queen, had not only generously provided them with fine clothes for their bodies, but likewise intended to adorn their souls, by the preaching of the gospel; and that to this purpose some ministers should be sent to them to instruct them. The governor had scarce ended, when one of the oldest Sachems got up, and answered, that in the name of all the Indians, he thanked their gracious good Queen and mother for the fine clothes she had sent them; but that in regard to the ministers, they had already had some among them (whom he likewise named), who instead of preaching the holy gospel to them, had taught them to drink to excess, to cheat, and to quarrel among themselves. He then entreated the governor to take from them these preachers, and a number of Europeans who resided amongst them; for before they were come among them, the Indians had been an honest, sober, and innocent people, but most of them became rogues now. That they had formerly had the fear of God, but that they hardly believed his existence at present. That if he (the governor) would do them any favour, he should send two or three blacksmiths amongst them, to teach them to forge iron, in which they were unexperienced. The governor could not forbear laughing at this extraordinary speech. I think the words of St. Paul not wholly unapplicable on this occasion: For the name of God is blasphemed amongst the Gentiles, through you*.

June 21st. About five o'clock in the afternoon we left Albany, and proceeded towards Canada. We had two men with us, who were to accompany us to the first

* Mr. Kalm is, I believe, not rightly informed. The French ecclesiastics have allured some few wretched Indians to their religion and interest, and settled them in small villages; but by the accounts of their behaviour in the several wars of the French and English, they were always guilty of the greatest cruelties and brutalities; and more so than their heathen countrymen; and therefore it seems that they have been rather perverted than converted. On the other hand, the English have translated the bible into the language of the Virginian Indians, and converted many of them to the true knowledge of God; and at this present time, the Indian charity schools and missions, conducted by the Rev. Mr. Eleazor Wheelock, have brought numbers of the Indians to the knowledge of the true God. The society for propagating the gospel in foreign parts, sends every year many missionaries, at their own expence, among the Indians. And the Moravian brethren are also very active in the conversion of Gentiles; so that if Mr. Kalm had considered all these circumstances, he would have judged otherwise of the zeal of the British nation, in propagating the gospel among the Indians. F.

† Romans ii. 24.

French place, which is Fort St. Frederick, or, as the English call it, Crown Point. For this service each of them was to receive five pounds of New York currency, besides which I was to provide them with victuals. This is the common price here, and he that does not choose to conform to it, is obliged to travel alone. We were forced to take up with a canoe*, as we could get neither battoes, nor boats of bark; and as there was a good road along the west side of the river Hudson, we left the men to row forwards, in the canoe, and we went along it on the shore, that we might be better able to examine it, and its curiosities, with greater accuracy. It is very incommodious to row in these canoes; for one stands at each end and pushes the boat forwards. They commonly keep close to the shore, that they may be able to reach the ground easily. Thus the rowers are forced to stand upright, whilst they row in a canoe. We kept along the shore all the evening, towards the river; it consisted of great hills, and next to the water grew the trees, which I have above mentioned, and which likewise are to be met with on the shores of the isle, in the river, situate below Albany. The easterly shore of the river is uncultivated, woody, and hilly; but the western is flat, cultivated, and chiefly turned into corn-fields, which had no drains, though they wanted them in some places. It appeared very plainly here, that the river had formerly been broader; for there is a sloping bank on the corn-fields, at about thirty yards distance from the river, with which it always runs parallel. From this it sufficiently appears, that the rising ground formerly was the shore of the river, and the corn-fields its bed. As a further proof, it may be added, that the same shells which abound on the present shore of the river, and are not applied to any use by the inhabitants, lie plentifully scattered on these fields. I cannot say whether this change was occasioned by the diminishing of the water in the river, or by its washing some earth down the river, and carrying it to its sides, or by the river's cutting deeper in on the sides.

All the grounds were ploughed very even, as is usual in the Swedish province of Upland. Some were sown with yellow, and others with white wheat. Now and then we saw great fields of flax, which was now beginning to flower. In some parts it grows very well, and in others it was but indifferent. The excessive drought which had continued throughout this spring, had parched all the grass and plants on hills and high grounds, leaving no other green plant than the common mullein (*Verbascum thapsus* Linn.) which I saw in several places, on the driest and highest hills, growing in spite of the parching heat of the sun, and though the pastures and meadows were excessively poor, and afforded scarce any food at all, yet the cattle never touched the mullein. Now and then I found fields with pease, but the charlock (*sinapis arvensis* Linn.) kept them quite under. The soil in most of these fields is a fine mould, which goes pretty deep.

The wild vines cover all the hills along the rivers, on which no other plants grow, and on those which are covered with trees, they climb to the tops of them, and wholly cover them, making them bend down with their weight. They had already large grapes; we saw them abundant all this day, and during all the time that we kept to the river Hudson, on the hills, along the shores, and on some little islands in the river.

The white-backed maize-thieves appeared now and then, flying amongst the bushes: their note is fine, and they are not so large as the black maize-thieves, (*oriolus phoeniceus*). We saw them near New York, for the first time.

* See the description of it, p. 84.

We found a water-beech tree (*platanus occidentalis*) cut down near the road, measuring about five feet in diameter.

This day, and for some days afterwards, we met with islands in the river. The larger ones were cultivated, and turned into corn-fields and meadows.

We walked about five English miles along the river to-day, and found the ground, during that time, very uniform, and consisting of pure earth. The red maple, the water-beech, the water-asp, the wild prune-tree, the sumach, the elm, the wild vines, and some species of willows, were the trees which we met with on the rising shores of the river, where some asparagus (*asparagus officinalis*) grew wild.

We passed the night about six miles from Albany, in a countryman's cottage. On the west side of the river we saw several houses, one after another, inhabited by the descendants of the first Dutch settlers, who lived by cultivating their grounds. About half an English mile beyond our lodgings, was the place where the tide stops in the river Hudson, there being only small and shallow streams above it. At that place they catch a good many sorts of fish in the river.

The barns were generally built in the Dutch way, as I have before described; for in the middle was the threshing-floor, above it a place for the hay and straw, and on each side stables for horses, cows, and other animals. The barn itself was very large. Sometimes the buildings in the court-yard consist only of a room, and a garret above it, together with a barn upon the above plan.

June 22d. This morning I followed one of our guides to the water-fall near Cohoes, in the river Mohawk, before it falls into the river Hudson. This fall is about three English miles from the place where I passed the night. The country till the fall is a plain, and only hilly about the fall itself. The wood is cleared in most places, and the ground cultivated, and interspersed with farm-houses.

The Cohoes fall is one of the greatest in North America: it is in the river Mohawk, before it unites with the river Hudson. Above and below the fall, the sides and the bottom of the river consist of hard rock. The river is three hundred yards broad here. At the fall there is a rock crossways in the river, running every where equally high, and crossing in a strait line with the side which forms the fall. It represents, as it were, a wall towards the lower side, which is not quite perpendicular, wanting about four yards. The height of this wall, over which the water rolls, appeared to me about twenty or twenty-four yards. I had marked this height in my pocket-book; and afterwards found it agreed pretty well with the account which that ingenious engineer, Mr. Lewis Evans, communicated to me at Philadelphia. He said, that he had geometrically measured the breadth and height of the fall, and found it nine hundred English feet broad, and seventy-five feet high. The representation of this fall, which is here joined, has been made by Mr. Evans. There was very little water in the river at present, and it only ran over the fall in a few places. In such places where the water had rolled down before, it had cut deep holes below into the rock, sometimes to the depth of two or three fathoms. The bed of the river, below the fall, was of rock, and quite dry, there being only a channel in the middle fourteen feet broad, and a fathom or somewhat more deep, through which the water passed which came over the fall. We saw a number of holes in the rock, below the fall, which bore a perfect resemblance to those in Sweden which we call giants pots, or mountain kettles. They differed in size; there being large deep ones, and small shallow ones. We had clear uninterrupted sun-shine, not a cloud above horizon, and no wind at all. However, close to this fall, where the water was in such a small quantity, there was a continual drizzling rain,

occasioned by the vapours which rose from the water during its fall, and were carried about by the wind. Therefore, in coming within a musket-shot of the fall, against the wind, our cloths were wetted at once, as from a rain. The whirl-pools, which were in the water below the fall, contained several kinds of fish; and they were caught by some people, who amused themselves with angling. The rocks hereabouts consist of the same black stone which forms the hills about Albany. When exposed to the air, it is apt to shiver into horizontal flakes, as slate does.

At noon we continued our journey to Canada in the canoe, which was pretty long, and made out of a white pine. Somewhat beyond the farm where we lay at night, the river became so shallow that the men could reach the ground every where with their oars; it being in some parts not above two feet and sometimes but one foot deep. The shore and bed of the river consisted of sand and pebbles. The river was very rapid, and against us; so that our rowers found it very hard work to get forward against the stream. The hills along the shore consisted merely of soil; and were very high and steep in some parts. The breadth of the river was generally near two musket-shot.

Sturgeons abound in the river Hudson. We saw them for several days together leap high up in the air, especially in the evening; our guides, and the people who lived hereabouts, asserted that they never see any sturgeons in winter time, because these fish go into the sea late in autumn, but come up again in spring and stay in the river all the summer. They are said to prefer the shallowest places in the river, which agreed pretty well with our observations; for we never saw them leap out of the water but in shallows. Their food is said to be several kinds of conservæ, which grow in plenty in some places at the bottom of the river; for these weeds are found in their bellies when they are opened. The Dutch who are settled here, and the Indians, fish for sturgeons, and every night of our voyage upon this river, we observed several boats with people who struck them with harpoons. The torches which they employed were made of that kind of pine, which they call the black pine here. The nights were exceedingly dark, though they were now shortest, and though we were in a country so much to the south of Sweden. The banks of the river lay covered with dead sturgeons, which had been wounded with the harpoon, but escaped, and died afterwards; they occasioned an insupportable stench during the excessive heat of the weather.

As we went further up the river, we saw an Indian woman and her boy sitting in a boat of bark, and an Indian wading through the river, with a great cap of bark on his head. Near them was an island on which there were a number of Indians at present, on account of the sturgeon fishery. We went to their huts to try if we could get one of them to accompany us to Fort St. Frederick. On our arrival we found that all the men were gone into the woods a hunting, and we were forced to engage their boys to go and look for them. They demanded bread for payment, and we gave them twenty little round loaves; for as they found that it was of great importance to us to speak with the Indians, they raised difficulties, and would not go till we gave them what they wanted. The island belonged to the Dutch, who had turned it into corn-fields. But at present they had leased it to the Indians, who planted their maize and several kinds of mellons on it. They built their huts or wigwams on this island, on a very simple plan. Four posts were put into the ground perpendicularly, over which they had placed poles, and made a roof of bark upon them. They had either no walls at all, or they consisted of branches with leaves, which were fixed to the poles. Their beds consisted of deer-skins which were spread on the ground. Their utensils were a couple of small kettles, and two ladles, and a bucket or two of bark, made so close as to keep water. The sturgeons were cut into long slices, and hung up in the sun-shine to dry,
and

and to be ready against winter. The Indian women were sitting at their work on the hill, upon deer-skins. They never make use of chairs, but sit on the ground: however they do not sit cross-legged, as the Turks do, but between their feet, which, though they be turned backwards, are not crossed, but bent outwards. The women wear no head-dress, and have black hair. They have a short blue petticoat, which reaches to their knees, and the brim of which is bordered with red or other ribbands. They wear their shifts over their petticoats. They have large ear-rings; and their hair is tied behind, and wrapped in ribbands. Their wampum, or pearls, and their money, which is made of shells, are tied round the neck, and hang down on the breast. This is their whole dress. They were now making several kinds of work of skins, to which they sowed the quills of the American porcupines, having dyed them black or red, or left them in their original colour.

Towards evening, we went from hence to a farm close to the river, where we found only one man, looking after the maize and the fields; the chief of the men not being then returned from the war.

The little brooks here contain crawfish, which are exactly the same with ours*, with this difference only, that they are somewhat less; however, the Dutch inhabitants will not eat them.

June 23d. We waited a good while for the Indians, who had promised to come home, in order to shew us the way to Fort St. Ann, and to assist us in making a boat of bark, to continue our voyage. About eight o'clock three of the men arrived. Their hair was black, and cut short; they wore rough pieces of woollen cloth, of a bright green colour, on their shoulders, a shirt which covers their thighs, and pieces of cloth, or skins, which they wrap round the legs and part of the thighs. They had neither hats, caps, nor breeches. Two of them had painted the upper part of their foreheads, and their cheeks, with vermilion. Round their neck was a ribband, from which hung a bag down to the breast, containing their knives. They promised to accompany us for thirty shillings; but soon after changed their minds, and went with an Englishman, who gave them more. Thus we were obliged to make this journey without these guides, who were, however, honest enough to return us fifteen shillings, which we had paid them before-hand.

Our last night's lodging was about ten English miles from Albany. During the last war, which was just ended, the inhabitants had retreated from thence to Albany, because the French Indians had taken or killed all the people they met with, set the houses on fire, and cut down the trees. Therefore, when the inhabitants returned, they found no houses, and were forced to lie under a few boards which were huddled together.

The river was almost a musket-shot broad, and the ground on both sides cultivated. The hills near the river were steep, and the earth of a pale colour.

The American elder (*Sambucus occidentalis* †) grows in incredible quantities along those hills, which appear quite white, from the abundance of flowers on the elder.

All this day along, we had one current after another, full of stones, which were great obstacles to our getting forward. The water in the river was very clear, and generally shallow, being only from two to four feet deep, running very violently against us in most places. The shore was covered with pebbles, and a grey sand. The hills consisted of earth, were high, and stood perpendicular towards the river, which was

* *Cancer Astacus* Linn.

† *Sambucus Canadensis* Linn.

near two musket-shot broad. Sometimes the land was cultivated, and sometimes it was covered with woods.

The hills near the river abound with red and white clover. We found both these kinds plentiful in the woods. It is therefore difficult to determine whether they were brought over by the Europeans, as some people think, or whether they were originally in America, which the Indians deny.

We found purslane (*portulaca oleracea*) growing plentifully in a sandy soil. In gardens it was one of the worst weeds.

We found people returning every where to their habitations, which they had been forced to leave during the war.

The farms were commonly built close to the river, on the hills. Each house has a little kitchen-garden, and a still lesser orchard. Some farms, however, had large gardens. The kitchen-gardens afford several kinds of gourds, water-melons, and kidney-beans. The orchards are full of apple-trees. This year the trees had few or no apples, on account of the frosty nights which had happened in May, and the drought which had continued throughout this summer.

The houses hereabouts are generally built of beams of wood, and of unburnt bricks dried by the sun and the air. The beams are first erected, and upon them a gable with two walls, and the spars. The wall on the gable is made of boards. The roof is covered with shingles of fir. They make the walls of unburnt bricks, between the beams, to keep the rooms warmer; and that they might not easily be destroyed by rain and air, they are covered with boards on the outside. The cellar is below the house.

The farms are either built close to the river-side, or on the high grounds; and around them are large fields with maize.

We saw great numbers of musk-rats (*castor zibethicus* Linn.) on the shores of the river, where they had many holes, some on a level with the surface of the water. These holes were large enough to admit a kitten. Before and in the entrance to the holes lay a quantity of empty shells, the animals of which had been eaten by the musk-rats*. They are caught in traps placed along the water-side, and baited with some maize or apples.

The sassafras-trees abound here, but never grow to any considerable height.

Chestnut-trees appear now and then.

The cockspur hawthorn (*crataegus crus galli* Linn.) grows in the poorest soil, and has very long spines; which shews, that it may be very advantageously planted in hedges, especially in a poor soil.

This night we lodged with a farmer, who had returned to his farm after the war was over. All his buildings, except the great barn, were burnt.

June 24th. The farm where we passed the night was the last in the province of New York, towards Canada, which had been left standing, and which was now inhabited. Further on, we met still with inhabitants; but they had no houses, and lived in huts of boards; the houses being burnt during the war.

As we continued our journey, we observed the country on both sides of the river to be generally flat, but sometimes hilly; and large tracts of it are covered with woods of fir-trees. Now and then we found some parts turned into corn-fields and meadows; however, the greater part was covered with woods. Ever since we left Albany, almost

* This appears to be a new observation, as Linnæus, De Buffon, and Sarrazin, pretend they only feed on the acorns, or reeds, and other roots.

half-way to Saratoga, the river runs very rapid; and it cost us a deal of pains to get upwards. But afterwards it becomes very deep, for the space of several miles; and the water moves very slowly. The shores are very steep, though they are not very high. The river is two musket-shot broad. In the afternoon it changed its direction; for hitherto its direction was from north to south, but now it came from N. N. E. to S. S. W. and sometimes from N. E. to S. W.

Ant-hills are very scarce in America; and I do not remember seeing a single one before I came to the Cohoes Fall. We observed a few in the woods to-day. The ants were the same with our common red ones (*formica rufa* Linn.) The ant-hills consist chiefly of the slate-like mouldered stone which abounds here, there being nothing else for them.

Chestnut-trees grew scattered in the woods. We are told, that mulberry-trees (*morus rubra* Linn.) likewise grow wild here, but rather scarce; and this is the most northerly place where they grow in America; at least, they have not been observed further to the north. We met with wild parsnips every day; but commonly in such places where the land was, or had been, cultivated. Hemp grows spontaneously, and in great abundance, near old plantations.

The woods abound with wood-lice, which were extremely troublesome to us.

The *thuya occidentalis* Linn. appeared along the shores of the river. I had not seen it there before.

The trees which grow along the shores, and on the adjacent hills, within our sight to-day, are elms, birches, white firs, alders, dog-trees, lime-trees, red willows, and chestnut-trees. The American elder, (*sambucus Canadensis* Linn.) and the wild vines, only appear in places where the ground has been somewhat cultivated, as if they were desirous of being the companions of men. The lime-trees and white walnut-trees are the most numerous. The horn-beams, with inflated cones, (*carpinus ostrya* Linn.) appeared now and then; but the water-beech and water-poplar never came within sight any more.

We frequently saw ground-squirrels and black squirrels in the woods.

At a little distance from Saratoga, we met two Indians in their boats of bark, which could scarce contain more than one person.

Near Saratoga the river becomes shallow and rapid again. The ground is here turned into corn-fields and meadows, but on account of the war it was not made use of.

Saratoga has been a fort built of wood by the English, to stop the attacks of the French Indians upon the English inhabitants in these parts, and to serve as a rampart to Albany. It is situated on a hill, on the east side of the river Hudson, and is built of thick posts driven into the ground, close to each other, in the manner of palisades, forming a square, the length of whose sides was within the reach of a musket-shot. At each corner are the houses of the officers, and within the palisades are the barracks, all of timber. This fort has been kept in order and was garrisoned till the last war, when the English themselves in 1747 set fire to it, not being able to defend themselves in it against the attacks of the French and their Indians; for as soon as a party of them went out of the fort, some of these enemies lay concealed, and either took them all prisoners, or shot them.

I shall only mention one out of many artful tricks which were played here, and which both the English and French who were present here at that time told me repeatedly. A party of French, with their Indians, concealed themselves one night in a thicket near the fort. In the morning some of their Indians, as they had previously resolved,

resolved, went to have a nearer view of the fort. The English fired upon them, as soon as they saw them at a distance; the Indians pretended to be wounded, fell down, got up again, ran a little way, and dropped again. Above half the garrison rushed out to take them prisoners; but as soon as they were come up with them, the French and the remaining Indians came out of the bushes, betwixt the fortrefs and the English, surrounded them, and took them prisoners. Those who remained in the fort had hardly time to shut the gates, nor could they fire upon the enemy, because they equally exposed their countrymen to danger, and they were vexed to see their enemies take and carry them off in their sight, and under their cannon. Such French artifices as these made the English weary of their ill-planned fort. We saw some of the palisades still in the ground. There was an island in the river, near Saratoga, much better situated for a fortification. The country is flat on both sides of the river near Saratoga, and its soil good. The wood round about was generally cut down. The shores of the river are high, steep, and consist of earth. We saw some hills in the north, beyond the distant forest. The inhabitants are Dutch, and bear an inveterate hatred to all Englishmen.

We lay over night in a little hut of boards, erected by the people who were come to live here.

June 25th. Several saw-mills were built here before the war, which were very profitable to the inhabitants, on account of the abundance of wood which grows here.

The boards were easily brought to Albany, and from thence to New York, in rafts every spring with the high water; but all the mills were burnt at present.

This morning we proceeded up the river, but after we had advanced about an English mile, we fell in with a water-fall, which cost us a deal of pains before we could get our canoe over it. The water was very deep just below the fall, owing to its hollowing the rock out by the fall. In every place where we met with rocks in the river, we found the water very deep, from two to four fathoms and upwards; because by finding a resistance it had worked a deeper channel into the ground. Above the fall, the river is very deep again, the water slides along silently, and increases suddenly near the shores. On both sides, till you come to Fort Nicholson, the shore is covered with tall trees. After rowing several miles we passed another water-fall which was longer and more dangerous than the preceding one.

Giants-pots*, which I have described in the Memoirs of the Royal Swedish Academy of Sciences, are abundant near the fall of the rock which extends across the river. The rock was almost dry at present, the river containing very little water at this season of the year. Some of the giants-pots were round, but in general they were oblong. At the bottom of most of them lay either stones or grit, in abundance. Some were fifteen inches in diameter, but some were less. Their depth was likewise different, and some that I observed were above two feet deep. It is plain that they owed their origin to the whirling of the water round a pebble, which by that means was put in motion, together with the sand.

We intended to have gone quite up to Fort Nicholson in the canoe, which would have been a great convenience to us; but we found it impossible to get over the upper fall, the canoe being heavy, and scarce any water in the river, except in one place where it flowed over the rock, and where it was impossible to get up, on account of the steepness and the violence of the fall. We were accordingly obliged to leave

* This is the literal meaning of the Swedish word *jätte grytor*.

our canoe here, and to carry our baggage through unfrequented woods to Fort Anne, on the river Woodcreek, which is a space from forty-three to fifty English miles, during which we were quite spent through the excess of heat. Sometimes we had no other way of crossing deep rivers, than by cutting down tall trees, which stood on their banks, and throwing them across the water. All the land we passed over this afternoon was almost level, without hills and stones, and entirely covered with a tall and thick forest, in which we continually met with trees which were fallen down, because no one made the least use of the woods. We passed the next night in the midst of the forest, plagued with muskitoes, gnats, and wood-lice, and in fear of all kinds of snakes.

June 26th. Early this morning we continued our journey through the wood, along the river Hudson. There was an old path leading to Fort Nicholson, but it was so overgrown with grass that we discovered it with great difficulty. In some places we found plenty of raspberries.

Fort Nicholson is the place on the eastern shore of the river Hudson, where a wooden fortification formerly stood. We arrived here some time before noon, and rested a while. Colonel Lydius resided here till the beginning of the last war, chiefly with a view of carrying on a greater trade with the French Indians; but during the war, they burnt his house, and took his son prisoner. The fort was situated on a plain, but at present the place is all overgrown with a thicket. It was built in the year 1709, during the war with Queen Anne carried on against the French, and it was named after the brave English General Nicholson. It was not so much a fort, as a magazine to Fort Anne. In the year 1711, when the English naval attempt upon Canada miscarried, the English themselves set fire to this place. The soil hereabouts seems to be pretty fertile. The river Hudson passed close by here.

In the afternoon we continued our journey. We had hitherto followed the eastern shore of the river Hudson, and gone almost due north; but now we left it and went N. N. E. or N. E. across the woods, in order to come to the upper end of the river Woodcreek, which flows to Fort St. Frederick, where we might go in a boat from the former place. The ground we passed over this afternoon was generally flat, and somewhat low. Sometimes we saw a little hill, but neither mountains nor stones, and the country was every where covered with tall and thick forests. The trees stood close, and afforded a fine shade; but the pleasure which we enjoyed from it was lessened by the incredible quantity of gnats which filled the woods. We found several plants here, but they were far from each other, (as in our woods where the cattle have destroyed them) though no cattle ever came here. The ground was every where thick covered with leaves of the last autumn. In some places we found the ground overgrown with great quantities of moss. The soil was generally very good, consisting of a deep mould, in which the plants thrive very well. Therefore it seems that it would answer very well if it were cultivated: however, flowing waters were very scarce hereabouts; and if the woods were cleared, how great would be the effects of the parching heat of the sun, which might then act with its full force!

We lodged this night near a brook, in order to be sufficiently supplied with water, which was not every where at hand during this season. The muskitoes, punchins, or gnats, and the wood-lice, were very troublesome. Our fear of snakes, and of the Indians, rendered this night's rest very precarious and insecure.

Punchins, as the Dutch call them, are the little gnats (*Culex pulicaris* Linn.) which abound here. They are very minute, and their wings grey, with black spots. They are ten times worse than the larger ones, (*Culex pipiens* Linn.) or muskitoes; for their

size renders them next to imperceptible ; they are every where careless of their lives, suck their fill of blood, and cause a burning pain.

We heard several great trees fall of themselves in the night, though it was so calm that not a leaf stirred. They made a dreadful cracking.

June 27th. We continued our journey in the morning. We found the country like that which we passed over yesterday, except meeting with a few hills. Early this morning we plainly heard a fall in the river Hudson.

In every part of the forest we found trees thrown down either by storms or age ; but none were cut down, there being no inhabitants ; and though the wood is very fine, yet nobody makes use of it. We found it very difficult to get over such trees, because they had stopped up almost all the passages, and close to them was the chief residence of rattle-snakes, during the intenseness of the heat.

About two o'clock this afternoon we arrived at Fort Anne. It lies upon the river Woodcreek, which is here at its origin no bigger than a little brook. We stayed here all this day, and next, in order to make a new boat of bark, because there was no possibility to go down the river to Fort St. Frederick without it. We arrived in time, for one of our guides fell ill this morning, and could not have gone any further with his burthen. If he had been worse, we should have been obliged to stop on his account, which would have put us under great difficulties, as our provisions would soon have been exhausted, and from the desert place where we were, we could not have arrived at any inhabited place in less than three or four days. Happily we reached the wished for place, and the sick man had time to rest and recover.

About Fort Anne were found a number of mice of the common kind. They were probably the offspring of those which were brought to the fort in the soldier's provisions, at the time when it was kept in a state of defence.

We met with some apple and plumb-trees, which were certainly planted when the fort was in a good condition.

June 28th. The American elm, (*ulmus Americana* Linn.) grows in abundance in the forests hereabouts. There are two kinds of it. One was called the white elm, on account of the inside of the tree being white. It was more plentiful than the other species, which was called the red elm, because the colour of the wood was reddish. Of the bark of the former the boats made use of here are commonly made, it being tougher than the bark of any other tree. With the bark of hiccory, which is employed as baste, they sew the elm-bark together, and with the bark of the red elm they join the ends of the boat so close as to keep the water out. They beat the bark between two stones ; or for want of them, between two pieces of wood,

The making of the boat took up half yesterday and all this day. To make such a boat they pick out a thick tall elm with a smooth bark, and with as few branches as possible. This tree is cut down, and great care is taken to prevent the bark from being hurt by falling against other trees, or against the ground. With this view some people do not fell the trees, but climb to the top of them, split the bark, and strip it off, which was the method our carpenter took. The bark is split on one side in a strait line along the tree, as long as the boat is intended to be ; at the same time, the bark is carefully cut from the stem a little way on both sides of the slit, that it may more easily separate ; the bark is then peeled off very carefully, and particular care is taken not to make any holes into it ; this is easy when the sap is in the trees, and at other seasons the tree is heated by the fire for that purpose. The bark thus stripped off is spread on the ground in a smooth place, turning the inside downwards, and the rough outside

side upwards, and to stretch it better, some logs of wood or stones are carefully put on it, which press it down. Then the sides of the bark are gently bent upwards, in order to form the sides of the boat; some sticks are then fixed into the ground, at the distance of three or four feet from each other, in the curve line, in which the sides of the boat are intended to be, supporting the bark intended for the sides; the sides of the bark are then bent in the form which the boat is to have, and according to that the sticks are either put nearer or further off. The ribs of the boat are made of thick branches of hiccory, they being tough and pliable. They are cut into several flat pieces, about an inch thick, and bent into the form which the ribs require, according to their places in the broader or narrower part of the boat. Being thus bent, they are put across the boat, upon the back, or its bottom, pretty close, about a span or ten inches from each other. The upper edge on each side of the boat is made of two thin poles, of the length of the boat, which are put close together, on the side of the boat, being flat, where they are to be joined. The edge of the bark is put between these two poles, and sewed up with threads of bast, of the mouse-wood, or other tough bark, or with roots. But before it is thus sewed up the ends of the ribs are likewise put between the two poles on each side, taking care to keep them at some distance from each other; after that is done, the poles are sewed together, and being bent properly, both their ends join at each end of the boat, where they are tied together with ropes. To prevent the widening of the boat at the top, three or four transverse bands are put across it, from one edge to the other, at the distance of thirty or forty inches from each other. These bands are commonly made of hiccory, on account of its toughness and flexibility, and have a good length. Their extremities are put through the bark on both sides, just below the poles, which make the edges; they are bent up above those poles, and twisted round the middle part of the bands, where they are carefully tied by ropes. As the bark at the two ends of the boat cannot be put so close together as to keep the water out, the crevices are stopped up with the crushed or pounded bark of the red elm, which in that state looks like oakum. Some pieces of bark are put upon the ribs in the boat, without which the foot would easily pierce the thin and weak bark below, which forms the bottom of the boat, for the better security of which, some thin boards are commonly laid at the bottom, which may be trod upon with more safety. The side of the bark which has been upon the wood, thus becomes the outside of the boat, because it is smooth and slippery, and cuts the water with less difficulty than the other. The building of these boats is not always quick, for sometimes it happens that after peeling the bark off an elm, and carefully examining it, it is found pierced with holes and splits, or it is too thin to venture one's life in; in such a case another elm must be looked out; and it sometimes happens that several elms must be stripped of their bark, before one is found fit for a boat. That which we made was big enough to bear four persons, with our baggage, which weighed somewhat more than a man.

All possible precautions must be taken in rowing on the rivers and lakes of these parts with a boat of bark. For as the rivers, and even the lakes, contain numbers of broken trees, which are commonly hidden under the water, the boat may easily run against a sharp branch, which would tear half the boat away, if one rowed on very fast, exposing the people in it to great danger, where the water is very deep, especially if such a branch held the boat.

To get into such a dangerous vessel must be done with great care, and for the greater safety, without shoes. For with the shoes on, and still more with a sudden leap into the boat, the heels may easily pierce through the bottom of the boat, which might

sometimes be attended with very disagreeable circumstances, especially when the boat is so near a rock, and close to that a sudden depth of water; and such places are common in the lakes and rivers here.

I never saw the muskitoes (*Culex pipiens*) more plentiful in any part of America than they are here. They were so eager for our blood that we could not rest all the night, though we had surrounded ourselves with fire.

Wood-lice (*Acarus Americanus* Linn.) abound here, and are more plentiful than on any part of the journey. Scarcely any one of us sat down but a whole army of them crept upon his clothes. They caused us as much inconvenience as the gnats, during the last night, and the short time we stayed here. Their bite is very disagreeable, and they would prove very dangerous, if any one of them should creep into a man's ear, from whence it is difficult to extract them. There are examples of people whose ears were swelled to the size of the fist, on account of one of these insects creeping into them, and biting them.

The whippewill, or whip-poor-will, cried all night on every side. The fire-flies flew in numbers through the woods at night.

Fort Anne derives its name from Queen Anne; for in her time it served as a fortification against the French. It lies on the western side of the river Woodcreek, which is here as inconsiderable as a brook, of a fathom's breadth, and may be waded through in any part, during this season. The fort is built in the same manner as the forts Saratoga and Nicholson, that is to say, of palisades, within which the soldiers were quartered, and at the corners of which were the lodgings of the officers. The whole consisted of wood, because it was erected only with a view to resist irregular troops. It is built on a little rising ground which runs obliquely to the river Woodcreek. The country round about it is partly flat, partly hilly, and partly marshy, but it consists merely of earth, and no stones are to be met with, though ever so carefully sought for. General Nicholson built this fort in the year 1709; but at the conclusion of the war then carrying on against the French, it shared the same fate with Saratoga and Fort Nicholson, being burnt by the English in 1711. This happened with the following circumstance: In 1711 the English resolved to attack Canada by land and by sea at the same time. A powerful fleet sailed up the river St. Lawrence to besiege Quebec, and General Nicholson, who was the greatest promoter of this expedition, headed a numerous army to this place by land, to attack Montreal at the same time from hence; but a great part of the English fleet was shipwrecked in the river St. Lawrence, and obliged to return to New England. The news of this misfortune was immediately communicated to General Nicholson, who was advised to retreat. Captain Butler who commanded Fort Mohawk, during my stay in America, told me, that he had been at Fort Anne in 1711, and that General Nicholson was about to leave it, and to go down the river Woodcreek, in boats ready for that purpose, when he received the accounts of the disaster which befell the fleet. He was so enraged, that he endeavoured to tear his wig, but it being too strong for him, he flung it to the ground, and trampled on it, crying out, Roguery, treachery! He then set fire to the fort, and returned. We saw the remains of the burnt palisades in the ground. And I asked my guides, Why the English had been at so great an expence in erecting the fort, and why they afterwards burnt it without any previous consideration? They replied, that it was done to get money from the government once more, for the rebuilding of the fort, which money coming into some people's hands, they would appropriate a great part of it to themselves, and erect again a wretched, inconsiderable fort. They further told me, that
some

some of the richest people in Albany had promoted their poor relations to the places for supplying the army with bread, &c. with a view to patch up their broken fortunes; and that they had acquired such fortunes as rendered them equal to the richest inhabitants of Albany.

The heat was excessive to-day, especially in the afternoon, when it was quite calm. We were on the very spot where Fort Anne formerly stood; it was a little place free from trees, but surrounded with them on every side, where the sun had full liberty to heat the air. Afternoon it grew as warm as in a hot-bath*, and I never felt a greater heat. I found a difficulty of breathing, and it seemed to me as if my lungs could not draw in a sufficient quantity of air. I was more eased when I went down into the vallies, and especially along the Woodcreek. I tried to fan the air to me with my hat, but it only encreased the difficulty of breathing, and I received the greatest relief when I went to the water, and in a shady place frequently sprinkled some water in the air. My companions were all very much weakened, but they did not find such difficulty in breathing as I had done; however towards evening the air became somewhat cooler.

June 29th. Having completed our boat, after a great deal of trouble, we continued our journey this morning. Our provisions, which were much diminished, obliged us to make great haste; for by being obliged to carry every thing on our backs, through the woods to Fort Anne, we could not take a great quantity of provisions with us, having several other very necessary things with us; and we did always eat very heartily. As there was very little water in the river, and several trees were fallen across it, which frequently stopped the boat, I left the men in the boat, and went along the shore with Yungstroem. The ground on both sides of the river was so low, that it must be under water in spring and autumn. The shores were covered with several sorts of trees, which stood at moderate distances from each other, and a great deal of grass grew between them. The trees afforded a fine shade, very necessary and agreeable in this hot season; but the pleasure it gave was considerably lessened by the numbers of gnats which we met with. The soil was extremely rich.

As we came lower down the river, the dykes, which the beavers had made in it, produced new difficulties. These laborious animals had carried together all sorts of boughs and branches, and placed across the river, putting mud and clay in betwixt them, to stop the water. They had bit off the ends of the branches as neatly as if they had been chopped off with a hatchet. The grass about these places was trod down by them, and in the neighbourhood of the dykes we sometimes met with paths in the grass, where the beavers probably carried trees along. We found a row of dykes before us, which stopped us a considerable while, as we could not get forwards with the boat, till we had cut through them.

* In Sweden and in Russia it is usual for people of all ranks to bathe every week at least one time; this is done in a stove heated by an oven, to a surprising degree, and which is enough to stifle people who are not used to it: for commonly the heat is increased by the hot steam, caused by throwing red hot stones into water. In these baths, in Russia, the lower sorts of people, men and women, bathe promiscuously, as the Romans did, and from whom, as Plutarch observes, in his Life of Cato, the Greeks adopted this indelicate and indecent custom, and which spread so much, that the Emperor Adrian, and Marcus Antoninus were obliged to make laws against it, but neither were they long observed, for we find soon the Council of Laodicea obliged to prescribe a canon against this brutal custom, and notwithstanding this, we find soon after that not only persons of all ranks, but even clergymen and monks bathed promiscuously with women, in the same baths; and from thence, it is probable, this custom passed among the Russians, when Christianity took place among them. Near the bath, in Russia, is commonly a pond, where the people plunge in, when quite hot, and in winter they welter in the snow; and Saturdays it is common to see before the bath naked men and women, each having a bundle of rods in their hands, with which they gently beat one another, when in the bath. F.

As soon as the river was more open, we got into the boat again, and continued our journey in it. The breadth of the river, however, did not exceed eight or nine yards, and frequently it was not above three or four yards broad, and generally so shallow, that our boat got on with difficulty. Sometimes it acquired such a sudden depth, that we could not reach the ground with sticks of seven feet long. The stream was very rapid in some places, and very slow in others. The banks were low at first, but afterwards remarkably high and steep, and now and then a rock projected into the water, which always caused a great depth in such places. The rocks consisted here of a grey quartz, mixed with grey lime-stone, lying in strata. The water in the river was very clear and transparent, and we saw several little paths leading to it from the woods, said to be made by beavers, and other animals, which resorted here to drink. After going a little more than three English miles, we came to a place, where a fire was yet burning, and then we little thought that we had narrowly escaped death last night, as we heard this evening. Now and then we met with several trees lying across the river, and some dykes of beavers, which were troublesome to us.

Towards night we met with a French serjeant and six French soldiers, who were sent by the commander of Fort St. Frederick to accompany three Englishmen to Saratoga, and to defend them in case of necessity, against six French Indians, who were gone to be revenged on the English, for killing the brother of one of them in the last war. The peace was already concluded at that time, but as it had not yet been proclaimed in Canada, the Indians thought they could take this step; therefore they silently got away, contrary to the order of the governor of Montreal, and went towards the English plantations. We here had occasion to admire the care of Providence for us, in escaping these barbarians. We found the grass trod down all the day long, but had no thoughts of danger, as we believed every thing was quiet and peaceable. We were afterwards informed, that these Indians had trod the grass down, and passed the last night in the place where we found the burning brands in the morning. The usual road which they were to take, was by Fort Anne, but to shorten their journey they had gone an unfrequented road. If they had gone on towards Fort Anne, they would have met us without doubt, and looking upon us all as Englishmen, for whose blood they were gone out, they could easily have surprised and shot us all, and by that means have been rid of the trouble of going any further to satisfy their cruelty. We were greatly struck when the Frenchmen told us how near death we had been to-day. We passed the night here, and though the French repeatedly advised and desired me not to venture any further with my company, but to follow them to the first English settlement, and then back to Fort St. Frederick, yet I resolved, with the protection of the Almighty, to continue my journey the next day.

We saw immense numbers of those wild pigeons flying in the woods, which sometimes come in incredible flocks to the southern English colonies, most of the inhabitants not knowing where they come from. They have their nests in the trees here; and almost all the night make a great noise and cooing in the trees, where they roost. The Frenchmen shot a great number of them, and gave us some, in which we found great quantity of the seeds of the elm, which evidently demonstrated the care of Providence in supplying them with food; for in May the seeds of the red maple, which abounds here, are ripe, and drop from the trees, and are eaten by the pigeons during that time: afterwards, the seeds of the elm ripen, which then become their food, till other seeds ripen for them. Their flesh is the most palatable of any bird's flesh I ever tasted.

Almost every night, we heard some trees crack and fall, whilst we lay here in the woods, though the air was so calm that not a leaf stirred. The reason of this break-

ing I am totally unacquainted with. Perhaps the dew loosens the roots of trees at night; or perhaps there are too many branches on one side of the tree. It may be, that the above-mentioned wild-pigeons settle in such quantities on one tree as to weigh it down; or perhaps the tree begins to bend more and more to one side, from its centre of gravity, making the weight always greater for the roots to support, till it comes to the point, when it can no longer be kept upright, which may as well happen in the midst of a calm night as at any other time. When the wind blows hard, it is reckoned very dangerous to sleep or walk in the woods, on account of the many trees which fall in them; and even when it is very calm, there is some danger in passing under very great and old trees. I was told, in several parts of America, that the storms or hurricanes sometimes only pass over a small part of the woods, and tear down the trees in it; and I have had opportunities of confirming the truth of this observation, by finding places in the forests, where almost all the trees were thrown down, and lay all in one direction.

Tea is differently esteemed by different people; and I think we would be as well, and our purses much better, if we were both without tea and coffee. However, I must be impartial, and mention in praise of tea, that if it be useful, it must certainly be so in summer, on such journeys as mine, through a desert country, where one cannot carry wine or other liquors, and where the water is generally unfit for use, as being full of insects. In such cases, it is very relishing when boiled, and tea is drunk with it; and I cannot sufficiently describe the fine taste it has in such circumstances. It relieves a weary traveller more than can be imagined, as I have myself experienced, together with a great many others who have travelled through the desert forests of America; on such journeys, tea is found to be almost as necessary as victuals*.

June 30th. This morning we left our boat to the Frenchmen, who made use of it to carry their provisions; for we could not make any further use of it, on account of the number of trees which the French had thrown across the river during the last war, to prevent the attacks of the English upon Canada. The Frenchmen gave us leave to make use of one of their boats, which they had left behind them, about six miles from the place where we passed the last night. Thus we continued our journey on foot, along the river; and found the country flat, with some little vales here and there. It was every where covered with tall trees of the deciduous kind; among which the beech, the elm, the American lime-tree, and the sugar-maple, were the most numerous. The trees stand at some distance from each other; and the soil in which they grow is extremely rich.

After we had walked about a Swedish mile, or six English miles, we came to the place where the six Frenchmen had left their bark boats, of which we took one, and rowed down the river, which was now between nineteen and twenty yards broad. The ground on both sides was very smooth, and not very high. Sometimes we found a hill consisting of grey quartz, mixed with small fine grains of grey spar. We likewise observed black stripes in it; but they were so small, that I could not determine whether they were of glimmer, or of another kind of stone. The hills were frequently divided into strata, lying one above another, of the thickness of five inches. The strata went from north to south; and were not quite horizontal, but dipping to the north. As we went further on, we saw high and steep hills on the river-side, partly

* On my travels through the desert plains, beyond the river Volga, I have had several opportunities of making the same observations on tea; and every traveller in the same circumstances, will readily allow them to be very just. F.

covered with trees; but in other parts, the banks consist of a swampy turf ground, which gave way when it was walked upon, and had some similarity to the fides of our marshes, which my countrymen are now about to drain. In those parts where the ground was low and flat, we did not see any stones either on the ground or on the softer shore; and both sides of the river, when they were not hilly, were covered with tall elms, American lime-trees, sugar-maples, beeches, hiccory-trees, some water-beeches, and white walnut-trees.

On our left we saw an old fortification of stones laid above one another; but nobody could tell me whether the Indians or the Europeans had built it.

We had rowed very fast all the afternoon, in order to get forward; and we thought that we were upon the true road, but found ourselves greatly mistaken: for towards night we observed, that the reeds in the river bent towards us, which was a mark that the river likewise flowed towards us; whereas, if we had been on the true river, it should have gone with us. We likewise observed, from the trees which lay across the river, that nobody had lately passed that way, though we should have seen the steps of the Frenchmen in the grass along the shore, when they brought their boat over these trees. At last, we plainly saw that the river flowed against us, by several pieces of wood which floated slowly towards us; and we were convinced, that we had gone twelve English miles and upwards upon a wrong river, which obliged us to return, and to row till very late at night. We sometimes thought, through fear, that the Indians, who were gone to murder some English, would unavoidably meet with us. Though we rowed very fast, yet we were not able to-day to get half-way back to the place where we first left the true river.

The most odoriferous effluvia sometimes came from the banks of the river, towards night, but we could not determine what flowers diffused them. However, we supposed they chiefly arose from the *asclepias syriaca*, and the *apocynum androsaemifolium*.

The musk rats could likewise be smelled at night. They had many holes in the shores, even with the surface of the water.

We passed the night in an island, where we could not sleep on account of the gnats. We did not venture to make a fire for fear the Indians should find us out, and kill us. We heard several of their dogs barking in the woods, at a great distance from us, which added to our uneasiness.

July 1st. 1749. At day break we got up, and rowed a good while before we got to the place where we left the true road. The country which we passed was the poorest and most disagreeable imaginable. We saw nothing but a row of amazing high mountains covered with woods, steep and dirty on their sides; so that we found it difficult to get to a dry place, in order to land and boil our dinner. In many places the ground, which was very smooth, was under water, and looked like the fides of our Swedish morasses which are intended to be drained; for this reason the Dutch in Albany call these parts the drowned lands*. Some of the mountains run from S. S. W. to N. N. E. and when they come to the river, they form perpendicular shores, and are full of stones of different magnitudes. The river runs for the distance of some miles together from south to north.

The wind blew north all day, and made it very hard work for us to get forwards, though we all rowed as hard as we could, for all our provisions were eaten to-day at breakfast. The river was frequently an English mile and more broad, then it became

* De verdronkene landen.

narrow again, and so on alternately ; but upon the whole it kept a good breadth, and was surrounded on both sides by high mountains.

About six o'clock in the evening, we arrived at a point of land about twelve English miles from Fort St. Frederick. Behind this point the river is converted into a spacious bay ; and as the wind still kept blowing pretty strong from the north, it was impossible for us to get forward, since we were extremely weak. We were therefore obliged to pass the night here, in spite of the remonstrances of our hungry stomachs.

It is to be attributed to the peculiar grace of God towards us, that we met the above mentioned Frenchmen on our journey, and that they gave us leave to take one of their bark boats. It seldom happens once in three years, that the French go this road to Albany ; for they commonly pass over the Lake St. Sacrament, or, as the English call it, Lake George, which is the nearer and better road, and every body wondered why they took this troublesome one. If we had not got their large strong boat, and been obliged to keep that which we had made, we would in all probability have been very ill off ; for to venture upon the great bay during the least wind with so wretched a vessel, would have been a great piece of temerity, and we should have been in danger of being starved if we had waited for a calm. For being without fire-arms, and these deserts having but few quadrupeds, we must have subsisted upon frogs and snakes, which, (especially the latter) abound in these parts. I can never think of this journey, without reverently acknowledging the peculiar care and providence of the merciful Creator.

July 2d. Early this morning we set out on our journey again, it being moon-shine and calm, and we feared lest the wind should change and become unfavourable to us if we stopped any longer. We all rowed as hard as possible, and happily arrived about eight in the morning at Fort St. Frederick, which the English call Crown Point. Monsieur Lufignan, the governor, received us very politely. He was about fifty years old, well acquainted with polite literature, and had made several journies into this country, by which he had acquired an exact knowledge of several things relative to its state.

I was informed that during the whole of this summer, a continual drought had been here, and that they had not had any rain since last spring. The excessive heat had retarded the growth of plants ; and on all dry hills the grass, and a vast number of plants, were quite dried up ; the small trees which grew near rocks, heated by the sun, had withered leaves, and the corn in the fields bore a very wretched aspect. The wheat had not yet eared, nor were the pease in blossoms. The ground was full of wide and deep cracks, in which the little snakes retired and hid themselves when pursued, as into an impregnable asylum.

The country hereabout, it is said, contains vast forests of firs of the white, black, and red kind, which had been formerly still more extensive. One of the chief reasons of their decrease are, the numerous fires which happen every year in the woods, through the carelessness of the Indians, who frequently make great fires when they are hunting, which spread over the fir woods when every thing is dry.

Great efforts are made here for the advancement of natural history, and there are few places in the world where such good regulations are made for this useful purpose, all which is chiefly owing to the care and zeal of a single person. From hence it appears, how well a useful science is received and set off, when the leading men of a country are its patrons. The governor of the fort was pleased to shew me a long paper, which

which the then governor-general of Canada, the Marquis la Galissonniere, had sent him. It was the same marquis, who, some years after, as a French admiral, engaged the English fleet under Admiral Byng, the consequence of which was the conquest of Minorca. In this writing, a number of trees and plants are mentioned, which grow in North America, and deserve to be collected and cultivated on account of their useful qualities. Some of them are described, among which is the polygala senega, or rattle-snake-root; and with several of them the places where they grow are mentioned. It is further requested that all kinds of seeds and roots be gathered here; and, to assist such an undertaking, a method of preserving the gathered seeds and roots is prescribed, so that they may grow and be sent to Paris. Specimens of all kinds of minerals are required; and all the places in the French settlements are mentioned, where any useful or remarkable stone, earth, or ore has been found. There is likewise a manner of making observations and collections of curiosities in the animal kingdom. To these requests it is added, to enquire and get information, in every possible manner, to what purpose, and in what manner the Indians employ certain plants and other productions of nature, as medicines, or in any other case. This useful paper was drawn up by order of the Marquis la Galissonniere, by M. Gaultier, the royal physician at Quebec, and afterwards corrected and improved by the Marquis's own hand. He had several copies made of it, which he sent to all the officers in the forts, and likewise to other learned men who travelled in the country. At the end of the writing is an injunction to the officers, to let the governor-general know which of the common soldiers had used the greatest diligence in the discovery and collection of plants and other natural curiosities, that he might be able to promote them, when an opportunity occurred, to places adapted to their respective capacities, or to reward them in any other manner. I found that the people of distinction, in general here, had a much greater taste for natural history and other parts of literature than in the English colonies, where it was every body's sole care and employment to scrape a fortune together, and where the sciences were held in universal contempt*. It was still complained of here, that those who studied natural history, did not sufficiently enquire into the medicinal use of the plants of Canada.

The French, who are born in France, are said to enjoy a better health in Canada than in their native country, and to attain to a greater age than the French born in Canada. I was likewise assured that the European Frenchmen can do more work, and perform more journies in winter, without prejudice to their health, than those born in this country.

* It seems Mr. Kalm has forgotten his own assertions in the former part of this work. Dr. Colden, Dr. Franklin, and Mr. Bartram, have been the great promoters and investigators of nature in this country; and how would the inhabitants of Old England have gotten the fine collections of North American trees, shrubs, and plants, which grow at present almost in every garden, and are as if it were naturalized in Old England, had they not been assisted by their friends, and by the curious in North America. One needs only cast an eye on Dr. Linnæus's new edition of his *Systema*, and the repeated mention of Dr. Garden, in order to be convinced that the English in America have contributed a greater share towards promoting natural history than any nation under heaven, and certainly more than the French, though their learned men are often handsomely pensioned by their great monarch: on the other hand the English study that branch of knowledge, from the sole motive of its utility, and the pleasure it affords to a thinking being, without any of those mercenary views held forth to the learned of other countries. And as to the other parts of literature, the English in America are undoubtedly superior to the French in Canada, witness the many useful institutions, colleges, and schools founded in the English colonies in North America, and so many very considerable libraries now erecting in this country, which contain such a choice of useful and curious books, as were very little known in Canada before it fell into the hands of the English; not to mention the productions of original genius written by Americans born. F.

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The intermitting fever which attacks the Europeans on their arrival in Pensylvania, and which, as it were, makes the climate familiar to them, is not known here, and the people are as well after their arrival as before. The English have frequently observed, that those who are born in America of European parents, can never bear sea-voyages, and go to the different parts of South-America, as well as those born in Europe. The French born in Canada have the same constitutions; and when any of them go to the West-India islands, such as Martinique, Domingo, &c., and make some stay there, they commonly fall sick, and die soon after: those who fall ill there seldom recover, unless they are brought back to Canada. On the contrary, those who go from France to those islands can more easily bear the climate, and attain a great age there, which I heard confirmed in many parts of Canada.

July 5th. Whilst we were at dinner, we several times heard a repeated disagreeable out-cry, at some distance from the fort, in the river Woodcreek. Mr. Lufignan, the governor, told us this cry was no good omen, because he could conclude from it that the Indians, whom we escaped near Fort Anne, had compleated their design of revenging the death of one of their brethren upon the English, and that their shouts shewed that they had killed an Englishman. As soon as I came to the window, I saw their boat, with a long pole at one end, on the extremity of which they had put a bloody skull. As soon as they were landed, we heard that they, being six in number, had continued their journey (from the place where we had marks of their passing the night), till they had got within the English boundaries, where they found a man and his son employed in mowing the corn. They crept on towards this man, and shot him dead upon the spot. This happened near the very village, where the English, two years before, killed the brother of one of these Indians, who were then gone out to attack them. According to their custom they cut off the skull of the dead man, and took it with them, together with his clothes and his son, who was about nine years old. As soon as they came within a mile of Fort St. Frederick, they put the skull on a pole, in the fore part of the boat, and shouted as a sign of their success. They were dressed in shirts, as usual, but some of them had put on the dead man's clothes; one his coat, the other his breeches, another his hat, &c. Their faces were painted with vermillion, with which their shirts were marked across the shoulders. Most of them had great rings in their ears, which seemed to be a great inconvenience to them, as they were obliged to hold them when they leaped, or did any thing which required a violent motion. Some of them had girdles of the skins of rattle-snakes, with the rattles on them; the son of the murdered man had nothing but his shirt, breeches and cap, and the Indians had marked his shoulders with red. When they got on shore, they took hold of the pole on which the skull was put, and danced and sung at the same time. Their view in taking the boy, was to carry him to their habitations, to educate him instead of their dead brother, and afterwards to marry him to one of their relations. Notwithstanding they had perpetrated this act of violence in time of peace, contrary to the command of the governor in Montreal, and to the advice of the governor of St. Frederick, yet the latter could not at present deny them provisions, and whatever they wanted for their journey, because he did not think it adviseable to exasperate them; but when they came to Montreal, the governor called them to account for this action, and took the boy from them, whom he afterwards sent to his relations. Mr. Lufignan asked them, what they would have done to me and my companions, if they had met us in the desert? They replied, that as it was their chief intention to take their revenge on the Englishmen in the village where their brother was killed, they would have let us alone; but it much depended on the

humour they were in, just at the time when we first came to their fight. However, the commander, and all the Frenchmen, said, that what had happened to me was infinitely safer and better.

Some years ago a skeleton of an amazing great animal had been found in that part of Canada where the Illinois live. One of the lieutenants in the fort assured me, that he had seen it. The Indians who were there, had found it in a swamp. They were surprised at the sight of it, and when they were asked, what they thought it was? They answered, that it must be the skeleton of the chief or father of all the beavers. It was of a prodigious bulk, and had thick white teeth, about ten inches long. It was looked upon as the skeleton of an elephant. The lieutenant assured me that the figure of the whole snout was yet to be seen, though it was half mouldered. He added, that he had not observed that any of the bones were taken away, but thought the skeleton lay quite perfect there. I have heard people talk of this monstrous skeleton in several other parts of Canada*.

Bears are plentiful hereabouts, and they kept a young one, about three months old, at the fort. He had perfectly the same shape, and qualities, as our common bears in Europe, except the ears, which seemed to be longer in proportion, and the hairs which were stiffer; his colour was deep brown, almost black. He played and wrestled every day with one of the dogs. A vast number of bear-skins are annually exported to France from Canada. The Indians prepare an oil from bear's grease, with which in summer they daub their face, hands, and all naked parts of their body, to secure them from the bite of the gnats. With this oil they likewise frequently smear the body, when they are excessively cold, tired with labour, hurt, and in other cases. They believe it softens the skin, and makes the body pliant, and is very serviceable to old age.

The common dandelion (*Leontodon Taraxacum* Linn.) grows in abundance on the pastures and roads between the fields, and was now in flower. In spring, when the young leaves begin to come up, the French dig up the plants, take their roots†, wash them, cut them, and prepare them as a common salad; but they have a bitter taste. It is not usual here to make use of the leaves for eating.

July 6th. The soldiers, which had been paid off after the war, had built houses round the fort, on the grounds allotted to them; but most of these habitations were no more than wretched cottages, no better than those in the most wretched places of Sweden; with that difference, however, that their inhabitants here were rarely oppressed by hunger, and could eat good and pure wheat bread. The huts which they had erected consisted of boards, standing perpendicularly close to each other. The roofs were of wood too. The crevices were stopped up with clay, to keep the room warm. The floor was commonly clay, or a black lime-stone, which is common here. The hearth was built of the same stone, except the place where the fire was to lie, which was made of grey sand-stones, which for the greatest part consist of particles of quartz. In some hearths, the stones quite close to the fire-place were lime-stones; however, I was assured that there was no danger of fire, especially if the stones, which were most exposed to the heat, were of a large size. They had no glass in their windows.

* The country of the Illinois is on the river Ohio, near the place where the English have found some bones, supposed to belong to elephants.

† In France the young blanched leaves, which scarce peep out of molehills, and have yet a yellow colour, are universally eaten as a salad, under the name of *Pissenlit*. E.

July 8th. The galium tinctorium is called tisavojaune rouge by the French throughout all Canada, and abounds in the woods round this place, growing in a moist but fine soil. The roots of this plant are employed by the Indians in dyeing the quills of the American porcupines red, which they put into several pieces of their work; and air, sun, or water, seldom change this colour. The French women in Canada sometimes dye their clothes red with these roots, which are but small, like those of galium utedum, or yellow bed-straw.

The horses are left out of doors during the winter, and find their food in the woods, living upon nothing but dry plants, which are very abundant; however they do not fall off by this food, but look very fine and plump in spring.

July 9th. The skeleton of a whale was found some French miles from Quebec, and one French mile from the river St. Laurence, in a place where no flowing water comes to at present. This skeleton has been of a very considerable size, and the governor of the fort said, he had spoke with several people who had seen it.

July 10th. The boats which are here made use of are of three kinds. 1. Bark-boats, made of the bark of trees, and of ribs of wood. 2. Canoes, consisting of a single piece of wood, hollowed out, which I have already described before. They are here made of the white fir, and of different sizes. They are not brought forward by rowing, but by paddling; by which method not half the strength can be applied, which is made use of in rowing; and a single man might, I think, row as fast as two of them could paddle. 3. The third kind of boats are bateaux. They are always made very large here, and employed for large cargoes. They are flat-bottomed, and the bottom is made of the red, but more commonly of the white oak, which resists better, when it runs against a stone, than other wood. The sides are made of the white fir, because oak would make the bateau too heavy. They make plenty of tar and pitch here.

The soldiery enjoy such advantages here as they are not allowed in every part of the world. Those who formed the garrison of this place had a very plentiful allowance from their government. They get every day a pound and a half of wheat bread. They likewise get pease, bacon, and salt meat in plenty. Sometimes they kill oxen and other cattle, the flesh of which is distributed among the soldiers. All the officers kept cows, at the expence of the king, and the milk they gave was more than sufficient to supply them. The soldiers had each a small garden without the fort, which they were allowed to attend, and plant in it whatever they liked, and some of them had built summer-houses in them, and planted all kind of pot-herbs. The governor told me, that it was a general custom to allow the soldiers a spot of ground for kitchen-gardens, at such of the French forts hereabouts as were not situated near great towns, from whence they could be supplied with greens. In time of peace the soldiers have very little trouble with being upon guard at the fort; and as the lake close by is full of fish, and the woods abound with birds and animals, those amongst them who choose to be diligent may live extremely well, and very grand in regard to food. Each soldier got a new coat every two years; but annually, a waistcoat, cap, hat, breeches, cravat, two pair of stockings, two pair of shoes, and as much wood as he had occasion for in winter. They likewise got five sols * a piece every day; which is augmented to thirty sols when they have any particular labour for the king. When this is considered, it is not surprising to find the men are very fresh, well fed, strong and lively here. When a soldier falls sick he is brought to the hospital, where the king provides him with a bed,

* A sol in France is about the value of one half-penny sterling.

food, medicines, and people to take care of and serve him. When some of them asked leave to be absent for a day or two, to go abroad, it was generally granted them, if circumstances would permit, and they enjoyed as usual their share of provisions and money, but were obliged to get some of their comrades to mount the guard for them as often as it came to their turns, for which they gave them an equivalent. The governor and officers were duly honoured by the soldiers; however, the soldiers and officers often spoke together as comrades, without any ceremonies, and with a very becoming freedom. The soldiers who are sent hither from France, commonly serve till they are forty or fifty years old, after which they are dismissed and allowed to settle upon, and cultivate a piece of ground: but if they have agreed on their arrival to serve no longer than a certain number of years, they are dismissed at the expiration of their term. Those who are born here commonly agree to serve the crown during six, eight, or ten years; after which they are dismissed, and set up for farmers in the country. The King presents each dismissed soldier with a piece of land, being commonly forty arpents* long, and but three broad, if the soil be of equal goodness throughout; but they get somewhat more, if it be a worse ground†. As soon as a soldier settles to cultivate such a piece of land, he is at first assisted by the King, who supplies himself, his wife and children, with provisions, during the three or four first years. The King likewise gives him a cow, and the most necessary instruments for agriculture. Some soldiers are sent to assist him in building a house, for which the King pays them. These are great helps to a poor man, who begins to keep house; and it seems that in a country where the troops are so highly distinguished by the royal favour, the King cannot be at a loss for soldiers. For the better cultivation and population of Canada, a plan has been proposed some years ago, for sending three hundred men over from France every year, by which means the old soldiers may always be dismissed, marry, and settle in the country. The land which was allotted to the soldiers about this place was very good, consisting throughout of a deep mould, mixed with clay.

July 11th. The harrows which they make use of here are made entirely of wood, and of a triangular form. The ploughs seemed to be less convenient. The wheels upon which the plough-beam is placed are as thick as the wheels of a cart, and all the wood-work is so clumsily made that it requires a horse to draw the plough along a smooth field.

Rock-stones of different sorts lay scattered on the fields. Some were from three to five feet high, and about three feet broad. They were pretty much alike in regard to the kind of the stone; however, I observed three different species in them.

First, Some consisted of a quartz, whose colour resembled sugar-candy, and which was mixed with a black small-grained glimmer, a black horn-stone, and a few minute grains of a brown spar. The quartz was most abundant in the mixture; the glimmer was likewise in great quantity, but the spar was inconsiderable. The several kinds of stones were well mixed, and though the eye could distinguish them, yet no instrument could

* An arpent in France contains 100 French perches, and each of those 22 French feet; then the French foot being to the English as 1440 to 1352; an arpent is about 2346 English feet, and 8 inches long. See Ordonnances de Louis XIV. sur le fait des Eaux and Forêts. Paris, 1687. p. 112. F.

† Mr. Kalm says, in his original, that the length of an arpent was so determined, that they reckoned 84 of them in a French lieue or league; but as this does by no means agree with the statute arpent of France, which by order of King Lewis XIV. was fixed at 2200 feet, Paris measure, (see the preceding note) we thought proper to leave it out of the text. F.

separate them. The stone was very hard and compact, and the grains of quartz looked very fine.

Second, Some pieces consisted of grey particles of quartz, black glimmer, and hornstone, together with a few particles of spar, which made a very close, hard, and compact mixture, only differing from the former in colour.

Third, A few of the stones consisted of a mixture of white quartz and black glimmer, to which some red grains of quartz were added. The spar (quartz) was most predominant in this mixture, and the glimmer appeared in large flakes. This stone was not so well mixed as the former, and was by far not so hard and so compact, being easily pounded.

The mountains on which Fort St. Frederick is built, as likewise those on which the above kinds of stone are found, consisted generally of a deep black lime-stone, lying in lamellæ as slates do, and it might be called a kind of slates, which can be turned into quick-lime by fire *. This lime-stone is quite black in the inside, and, when broken, appears to be of an exceeding fine texture. There are some grains of a dark spar scattered in it, which, together with some other inequalities, form veins in it. The strata which lie uppermost in the mountains consist of a grey lime-stone, which is seemingly no more than a variety of the preceding. The black lime-stone is constantly found filled with petrifications of all kinds, and chiefly the following.

Pectinites, or petrified ostreae pectines. These petrified shells were more abundant than any others that have been found here, and sometimes whole strata are met with, consisting merely of a quantity of shells of this sort, grown together; they are generally small, never exceeding an inch and a half in length. They are found in two different states of petrification; one shews always the impressions of the elevated and hollow surfaces of the shells, without any vestige of the shells themselves. In the other appears the real shell sticking in the stone, and by its light colour is easily distinguishable from the stone. Both these kinds are plentiful in the stone; however, the impressions are more in number than the real shells. Some of the shells are very elevated, especially in the middle, where they form as it were a hump; others again are depressed in the middle; but in most of them the outward surface is remarkably elevated. The furrows always run longitudinally, or from the top, diverging to the margin.

Petrified cornua ammonis. These are likewise frequently found, but not equal to the former in number: like the pectinitæ, they are found really petrified, and in impressions; amongst them were some petrified snails. Some of these cornua ammonis were remarkably big, and I do not remember seeing their equals, for they measured above two feet in diameter.

Different kinds of corals could be plainly seen in, and separated from, the stone in which they lay. Some were white and ramose, or lithophytes; others were starry corals, or madrepores; the latter were rather scarce.

I must give the name of stone-balls to a kind of stones foreign to me, which are found in great plenty in some of the rock-stones. They were globular, one half of them projecting generally above the rock, and the other remaining in it. They consist of nearly parallel fibres, which arise from the bottom as from a center, and spread over the surface of the ball, and have a grey colour. The outside of the balls is smooth, but has a number of small pores, which externally appear to be covered with a pale grey crust. They are from an inch to an inch and a half in diameter.

* Marmor schistosum, Linn. Syst. III. p. 40. Marmor unicolor nigrum. Wall. Min. pag. 61. n. 2. Lime-slates, schistus calcareus. Forst. Introd. to Min. p. 9. F.

Amongst

Amongst some other kinds of sand, which are found on the shores of lake Champlain, two were very peculiar, and commonly lay in the same place; and one was black, and the other reddish brown, or granite coloured.

The black sand always lies uppermost, consists of very fine grains, which, when examined by a microscope, appear to have a dark blue colour, like that of a smooth iron, not attacked by rust. Some grains are roundish, but most of them angular, with shining surfaces; and they sparkle when the sun shines. All the grains of this sand, without exception, are attracted by the magnet. Amongst these black or deep blue grains, they meet with a few grains of a red or garnet-coloured sand, which is the same with the red sand which lies immediately under it, and which I shall now describe. This red or garnet-coloured sand is very fine, but not so fine as the black sand. Its grains not only participate of the colour of garnets, but they are really nothing but pounded garnets. Some grains are round, others angulated: all shine and are semipellucid; but the magnet has no effect on them, and they do not sparkle so much in sunshine. This red sand is seldom found very pure, it being commonly mixed with a white sand, consisting of particles of quartz. The black and red sand is not found in every part of the shore, but only in a few places, in the order before mentioned. The uppermost or black sand lay about a quarter of an inch deep; when it was carefully taken off, the sand under it became of a deeper red the deeper it lay, and its depth was commonly greater than that of the former. When this was carefully taken away, the white sand of quartz appeared mixed very much at top with the red sand, but growing purer the deeper it lay. This white sand was above four inches deep, had round grains, which made it entirely like a pearl sand. Below this was a pale grey angulated quartz sand. In some places the garnet-coloured sand lay uppermost, and this grey angulated one immediately under it, without a grain of either the black or the white sand.

I cannot determine the origin of the black or steel-coloured sand, for it was not known here whether there were iron mines in the neighbourhood or not. But I am rather inclined to believe they may be found in these parts, as they are common in different parts of Canada, and as this sand is found on the shores of almost all the lakes and rivers in Canada, though not in equal quantities. The red or garnet-coloured sand has its origin hereabouts; for though the rocks near Fort St. Frederick contained no garnets, yet there are stones of different sizes on the shores, quite different from the stones which form those rocks; these stones are very full of grains of garnets, and when pounded there is no perceptible difference between them and the red sand. In the more northerly parts of Canada, or below Quebec, the mountains themselves contain a great number of garnets. The garnet-coloured sand is very common on the shores of the river St. Laurence. I shall leave out several observations which I made upon the minerals hereabouts, as uninteresting to most of my readers.

The apocynum androsæmifolium grows in abundance on hills covered with trees, and is in full flower about this time; the French call it herbe à le puce. When the stalk is cut or tore, a white milky juice comes out. The French attribute the same qualities to this plant, which the poison-tree, or rhus vermex, has in the English colonies; that its poison is noxious to some persons, and harmless to others. The milky juice when spread upon the hands and body, has no bad effect on some persons; whereas others cannot come near it without being blistered. I saw a soldier whose hands were blistered all over, merely by plucking the plant, in order to shew it me; and it is said its exhalations affect some people, when they come within reach of them. It is generally allowed here, that the lactescent juice of this plant, when spread on any part of

the human body not only swells the part, but frequently corrodes the skin; at least there are few examples of persons on whom it had no effect. As for my part, it has never hurt me, though in presence of several people I touched the plant, and rubbed my hands with the juice till they were white all over, and I have often rubbed the plant in my hands till it was quite crushed, without feeling the least inconvenience, or change on my hand. The cattle never touch this plant.

July 12th. Burdock, or *arctium lappa*, grows in several places about the fort; and the governor told me, that its tender shoots are eaten in spring as raddishes, after the exterior peel is taken off.

The fison *Canadense* abounds in the woods of all North America. The French call it *cerfeuil sauvage*, and make use of it in spring, in green soups, like chervil. It is universally praised here as a wholesome antiscorbutic plant, and as one of the best which can be had here in spring.

The *asclepias syriaca*, or, as the French call it, *le cotonier*, grows abundant in the country, on the sides of hills which lie near rivers and other situations, as well in a dry and open place in the woods, as in a rich loose soil. When the stalk is cut or broken it emits a lactescent juice, and for this reason the plant is reckoned in some degree poisonous. The French in Canada nevertheless use its tender shoots in spring, preparing them like asparagus; and the use of them is not attended with any bad consequences, as the slender shoots have not yet had time to suck up any thing poisonous. Its flowers are very odoriferous, and when in season, they fill the woods with their fragrant exhalations, and make it agreeable to travel in them, especially in the evening. The French in Canada make a sugar of the flowers, which for that purpose are gathered in the morning, when they are covered all over with dew. This dew is expressed, and by boiling yields a very good brown, palatable sugar. The pods of this plant, when ripe, contain a kind of wool, which encloses the seed, and resembles cotton, from whence the plant has got its French name. The poor collect it, and fill their beds, especially their children's, with it, instead of feathers. This plant flowers in Canada at the end of June, and beginning of July, and the seeds are ripe in the middle of September. The horses never eat of this plant.

July 16th. This morning I crossed lake Champlain to the high mountain on its western side, in order to examine the plants and other curiosities there. From the top of the rocks, at a little distance from Fort St. Frederick, a row of very high mountains appear on the western shore of lake Champlain, extending from south to north; and on the eastern side of this lake is another chain of high mountains, running in the same direction. Those on the eastern side are not close to the lake, being about ten or twelve miles from it; and the country between it and them is low and flat, and covered with woods, which likewise clothe the mountains, except in such places as the fires, which destroy the forests here, have reached them and burnt them down. These mountains have generally steep sides, but sometimes they are found gradually sloping. We crossed the lake in a canoe, which could only contain three persons, and as soon as we landed we walked from the shore to the top of the mountains. Their sides are very steep, and covered with a mould, and some great rock-stones lay on them. All the mountains are covered with trees; but in some places the forests have been destroyed by fire. After a great deal of trouble, we reached the top of one of the mountains, which was covered with a dusty mould. It was none of the highest; and some of those which were at a greater distance were much higher, but we had no time to go to them; for the wind encreased, and our boat was but a little one. We found no curious plants, or any thing remarkable here.

When we returned to the shore we found the wind risen to such a height, that we did not venture to cross the lake in our boat, and for that reason I left the fellow to bring it back, as soon as the wind subsided, and walked round the bay, which was a walk of about seven English miles. I was followed by my servant, and, for want of a road, we kept close to the shore, where we passed over mountains and sharp stones; through thick forests and deep marshes, all which were known to be inhabited by numberless rattle-snakes, of which we happily saw none at all. The shore is very full of stones in some places, and covered with large angulated rock-stones, which are sometimes roundish, and their edges as it were worn off. Now and then we met with a small sandy spot covered with grey, but chiefly with the fine red sand which I have before-mentioned; and the black iron sand likewise occurred sometimes. We found stones of a red glimmer of a fine texture, on the mountains. Sometimes these mountains with the trees on them stood perpendicular with the water-side, but in some places the shore was marshy.

I saw a number of petrified cornua ammonis in one place, near the shore, among a number of stones and rocks. The rocks consist of a grey lime-stone, which is a variety of the black one, and lies in a strata, as that does. Some of them contain a number of petrifications with, and without shells; and in one place we found prodigious large cornua ammonis, about twenty inches in breadth. In some places the water had wore off the stone, but could not have the same effect on the petrifications, which lay elevated above, and in a manner glued on the stones.

The mountains near the shore are amazingly high and large, consisting of a compact grey rock stone, which does not lie in strata as the lime-stone, and the chief of whose constituent parts are a grey quartz, and a dark glimmer. This rock-stone reached down to the water, in places where the mountains stood close to the shore; but where they were at some distance from it, they were supplied by strata of grey and black lime-stone, which reached to the water-side, and which I never have seen covered with the grey rocks.

The *zizania aquatica* grows in mud, and in the most rapid parts of brooks, and is in full bloom about this time.

July 17th. The distempers which rage among the Indians are rheumatisms and pleurifies, which arise from their being obliged frequently to lie in moist parts of the woods at night; from the sudden changes of heat and cold, to which the air is exposed here; and from their being frequently loaded with too great a quantity of strong liquor, in which case they commonly lie down naked in the open air, without any regard to the season, or the weather. These distempers, especially the pleurifies, are likewise very common among the French here; and the governor told me he had once a very violent fit of the latter, and that Dr. Sarrafin had cured him in the following manner, which has been found to succeed best here. He gave him sudorifics, which were to operate between eight and ten hours; he was then bled, and the sudorifics repeated; he was bled again, and that effectually cured him.

Dr. Sarrafin was the royal physician at Quebec, and a correspondent of the Royal Academy of Sciences at Paris. He was possessed of great knowledge in the practice of physic, anatomy, and other sciences, and very agreeable in his behaviour. He died at Quebec of a malignant fever, which had been brought to that place by a ship, and with which he was infected at an hospital, where he visited the sick. He left a son, who likewise studied physic, and went to France to make himself more perfect in the practical part of it, but he died there.

The

The intermitting fevers sometimes come amongst the people here, and the venereal disease is common here. The Indians are likewise infected with it; and many of them have had it, and some still have it; but they likewise are perfectly possessed of the art of curing it. There are examples of Frenchmen and Indians, infected all over the body with this disease, who have been radically and perfectly cured by the Indians, within five or six months. The French have not been able to find this remedy out; though they know that the Indians employ no mercury, but that their chief remedies are roots which are unknown to the French. I have afterwards heard what these plants were, and given an account of them at large to the Royal Swedish Academy of Sciences*.

We are very well acquainted in Sweden with the pain caused by the *tæniæ*, or a kind of worms. They are less abundant in the British North American colonies; but in Canada they are very frequent. Some of these worms, which have been evacuated by a person, have been several yards long. It is not known, whether the Indians are afflicted with them or not. No particular remedies against them are known here, and no one can give an account from whence they come, though the eating of some fruits contributes, as is conjectured, to create them.

July 19th. Fort St. Frederick is a fortification on the southern extremity of lake Champlain, situated on a neck of land, between that lake and the river, which arises from the union of the river Woodcreek, and lake St. Sacrement. The breadth of this river is here about a good musket-shot. The English call this fortress Crown Point, but its French name is derived from the French secretary of state, Frederic Maurepas, in whose hands the direction and management of the French court of admiralty was at the time of the erection of this fort; for it is to be observed, that the government of Canada is subject to the court of admiralty in France, and the governor-general is always chosen out of that court. As most of the places in Canada bear the names of saints, custom has made it necessary to prefix the word saint to the name of the fortresses. The fort is built on a rock, consisting of black lime-slates, as aforesaid; it is nearly quadrangular, has high and thick walls, made of the same lime-stone, of which there is a quarry about half a mile from the fort. On the eastern part of the fort is a high tower, which is proof against bombshells, provided with very thick and substantial walls, and well stored with cannon from the bottom almost to the very top; and the governor lives in the tower. In the terre-plein of the fort is a well built little church, and houses of stone for the officers and soldiers. There are sharp rocks on all sides towards the land, beyond a cannon-shot from the fort, but among them are some which are as high as the walls of the fort, and very near them.

The soil about fort St. Frederick is said to be very fertile, on both sides of the river; and before the last war a great many French families, especially old soldiers, have settled there; but the king obliged them to go into Canada, or to settle close to the fort, and to lie in it at night. A great number of them returned at this time, and it was thought that about forty or fifty families would go to settle here this autumn. Within one or two musket-shots to the east of the fort, is a wind-mill built of stone, with very thick walls, and most of the flour which is wanted to supply the fort is ground here. This wind-mill is so contrived as to serve the purpose of a redoubt, and at the top of it are five or six small pieces of cannon. During the last war there was a number of soldiers quartered in this mill, because they could from thence look a great

* See the Memoirs of that Academy, for the year 1750, page 284.
The *stillingia sylvatica* is probably one of these roots. F.

way up the river, and observe whether the English boats approached ; which could not be done from the fort itself, and which was a matter of great consequence, as the English might (if this guard had not been placed here) have gone in their little boats close under the western shore of the river, and then the hills would have prevented their being seen from the fort. Therefore the fort ought to have been built on the spot where the mill stands, and all those who come to see it are immediately struck with the absurdity of its situation. If it had been erected in the place of the mill, it would have commanded the river, and prevented the approach of the enemy ; and a small ditch cut through the loose lime-stone, from the river (which comes out of the lake St. Sacrement) to lake Champlain, would have surrounded the fort with flowing water, because it would have been situated on the extremity of the neck of land. In that case the fort would always have been sufficiently supplied with fresh water, and at a distance from the high rocks which surrounded it in its present situation. We prepared to-day to leave this place, having waited during some days for the arrival of the yacht, which plies constantly all summer between the forts St. John and St. Frederick : during our stay here, we had received many favours. The governor of the fort, Mr. Lusignan, a man of learning and of great politeness, heaped obligations upon us, and treated us with as much civility as if we had been his relations. I had the honour of eating at his table during my stay here, and my servant was allowed to eat with his. We had our rooms, &c. to ourselves, and at our departure the governor supplied us with ample provisions for our journey to fort St. John. In short, he did us more favours than we could have expected from our own countrymen, and the officers were likewise particularly obliging to us.

About eleven o'clock in the morning we set out, with a fair wind. On both sides of the lake are high chains of mountains ; with the difference which I have before observed, that on the eastern shore is a low piece of ground covered with a forest, extending between twelve and eighteen English miles, after which the mountains begin ; and the country behind them belongs to New England. This chain consists of high mountains, which are to be considered as the boundaries between the French and English possessions in these parts of North America. On the western shore of the lake, the mountains reach quite to the water side. The lake at first is but a French mile broad, but always encreases afterwards. The country is inhabited within a French mile of the fort, but after that, it is covered with a thick forest. At the distance of about ten French miles from fort St. Frederick, the lake is four such miles broad, and we perceive some islands in it. The captain of the yacht said there were about sixty islands in that lake, of which some were of a considerable size. He assured me that the lake was in most parts so deep, that a line of two hundred yards could not fathom it ; and close to the shore, where a chain of mountains generally runs across the country, it frequently has a depth of eighty fathoms. Fourteen French miles from fort St. Frederick we saw four large islands in the lake, which is here about six French miles broad. This day the sky was cloudy, and the clouds, which were very low, seemed to surround several high mountains, near the lake, with a fog ; and from many mountains the fog rose as the smoke of a charcoal-kiln. Now and then we saw a little river which fell into the lake : the country behind the high mountains, on the western side of the lake, is, as I am told, covered for many miles together with a tall forest, intersected by many rivers and brooks, with marshes and small lakes, and very fit to be inhabited. The shores are sometimes rocky, and sometimes sandy here. Towards night the mountains decreased gradually ; the lake is very clear, and we observed neither rocks nor shallows

shallows in it. Late at night the wind abated, and we anchored close to the shore, and spent one night here.

July 20th. This morning we proceeded with a fair wind. The place where we passed the night was above half way to Fort St. John; for the distance of that place from Fort St. Frederick, across lake Champlain is computed to be forty-one French miles; that lake is here about six English miles in breadth. The mountains were now out of sight, and the country low, plain, and covered with trees. The shores were sandy, and the lake appeared now from four to six miles broad. It was really broader, but the islands made it appear narrower.

We often saw Indians in bark-boats close to the shore, which was however not inhabited; for the Indians came here only to catch sturgeons, wherewith this lake abounds, and which we often saw leaping up in the air. These Indians lead a very singular life: at one time of the year they live upon the small store of maize, beans, and melons, which they have planted; during another period, or about this time, their food is fish, without bread or any other meat; and another season they eat nothing but stags, roes, beavers, &c., which they shoot in the woods, and rivers. They, however, enjoy long life, perfect health, and are more able to undergo hardships than other people. They sing and dance, are joyful, and always content; and would not, for a great deal, exchange their manner of life for that which is preferred in Europe.

When we were yet ten French miles from fort St. John, we saw some houses on the western side of the lake, in which the French had lived before the last war, and which they then abandoned, as it was by no means safe: they now returned to them again. These were the first houses and settlements which we saw after we had left those about fort St. Frederick.

There formerly was a wooden fort, or redoubt, on the eastern side of the lake, near the water-side; and the place where it stood was shewn me, which at present is quite overgrown with trees. The French built it to prevent the incursions of the Indians over this lake; and I was assured that many Frenchmen had been slain in these places. At the same time they told me, that they reckon four women to one man in Canada, because annually several Frenchmen are killed on their expeditions, which they undertake for the sake of trading with the Indians.

A wind-mill built of stone, stands on the east side of the lake on a projecting piece of ground. Some Frenchmen have lived near it; but they left it when the war broke out, and are not yet come back to it. From this mill to Fort St. John they reckon eight French miles. The English, with their Indians, have burnt the houses here several times, but the mill remained unhurt.

The yacht which we went into St. John was the first that was built here, and employed on Lake Champlain, for formerly they made use of bateaux to send provisions over the lake. The captain of the yacht was a Frenchman, born in this country; he had built it, and taken the soundings of the lake, in order to find out the true road between Fort St. John and Fort St. Frederick. Opposite the wind-mill the lake is about three fathoms deep, but it grows more and more shallow the nearer it comes to Fort St. John.

We now perceived houses on the shore again. The captain had otter-skins in the cabin, which were perfectly the same in colour and species with the European ones. Otters are said to be very abundant in Canada.

Seal-skins are here made use of to cover boxes and trunks, and they often made portmantles of them in Canada. The common people had their tobacco pouches made of

of the same skins. The seals here are entirely the same with the Swedish or European one, which are grey with black spots. They are said to be plentiful in the mouth of the river St. Lawrence, below Quebec, and go up that river as far as its water is salt. They have not been found in any of the great lakes of Canada. The French call them *loups marins* *.

The French in their colonies, spend much more time in prayer and external worship, than the English and Dutch settlers in the British colonies. The latter have neither morning nor evening prayer in their ships and yachts, and no difference is made between Sunday and other days. They never, or very seldom, say grace at dinner. On the contrary, the French here have prayers every morning and night on board their shipping, and on Sundays they pray more than commonly: they regularly say grace at their meals; and every one of them says prayers in private as soon as he gets up. At Fort St. Frederick all the soldiers assembled together for morning and evening prayers. The only fault was, that most of the prayers were read in Latin, which a great part of the people do not understand. Below the above mentioned wind-mill, the breadth of the lake is about a musket-shot, and it looks more like a river than a lake. The country on both sides is low and flat, and covered with woods. We saw at first a few scattered cottages along the shore; but a little further the country is inhabited without interruption. The lake is here from six to ten foot deep, and forms several islands. During the whole course of this voyage, the situation of the lake was always directly from S. S. W. to N. N. E.

In some parts of Canada are great tracts of land belonging to single persons; from these lands, pieces of forty arpens long, and four wide, are allotted to each discharged foldier who intends to settle here; but after his household is established, he is obliged to pay the owner of the lands six French francs annually.

The lake was now so shallow in several places, that we were obliged to trace the way for the yacht, by sounding the depth with branches of trees. In other places opposite, it was sometimes two fathom deep.

In the evening, about sun-set, we arrived at Fort St. Jean, or St. John, having had a continual change of rain, sun-shine, wind, and calm, all the afternoon.

July 21st. St. John is a wooden fort which the French built in 1748, on the western shore of the mouth of Lake Champlain, close to the water-side. It was intended to cover the country round about it, which they were then going to people, and to serve as a magazine for provisions and ammunition, which were usually sent from Montreal to Fort St. Frederick; because they may go in yachts from hence to the last mentioned place, which is impossible lower down, as about two gun-shot further, there is a shallow full of stones, and very rapid water in the river, over which they can only pass in bateaux, or flat vessels. Formerly Fort Chamblan, which lies four French miles lower, was the magazine of provisions; but as they were forced first to send them hither in bateaux, and then from hence on yachts, and the road to Fort Chamblan from Montreal being by land, and much round about, this fort was erected. It has a low situation, and lies in a sandy soil, and the country about it is likewise low, flat, and covered with woods. The fort is quadrangular, and includes the space of one arpent square. In each of the two corners which look towards the lake is a wooden building, four stories high, the lower part of which is of stone to the height of about a fathom and a half. In these buildings, which are polyangular, are holes for cannon and lesser fire-arms. In each of the two other corners towards the country, is only a little

* See Wolves.

wooden house, two stories high. These buildings are intended for the habitations of the soldiers, and for the better defence of the place; between these houses there are poles, two fathoms and a half high, sharpened at the top, and driven into the ground close to one another. They are made of the thuya tree, which is here reckoned the best wood for keeping from petrification, and is much preferable to fir in that point. Lower down the palisades were double, one row within the other. For the convenience of the soldiers, a broad elevated pavement of more than two yards in height, is made in the inside of the fort all along the palisades, with a balustrade. On this pavement the soldiers stand and fire through the holes upon the enemy, without being exposed to their fire. In the last year, 1748, two hundred men were in garrison here; but at this time there were only a governor, a commissary, a baker, and six soldiers to take care of the fort and buildings, and to superintend the provisions which are carried to this place. The person who now commanded at the fort, was the Chevalier de Ganues, a very agreeable gentleman, and brother-in-law to Mr. Lufignan, the governor of Fort St. Frederick. The ground about the fort, on both sides the water, is rich and has a very good soil; but it is still without inhabitants, though it is talked of, that it would get some as soon as possible.

The French in all Canada call the gnats marangois, which name, it is said, they have borrowed from the Indians. These insects are in such prodigious numbers in the woods round Fort St. John, that it would more properly be called Fort de Marangois. The marshes and the low situation of the country, together with the extent of the woods, contribute greatly to their multiplying so much; and when the woods are cut down, the water drained, and the country cultivated, they probably will decrease in number, and vanish at last, as they have done in other places.

The rattle snake, according to the unanimous accounts of the French, is never seen in this neighbourhood, nor further north near Montreal and Quebec; and the mountains which surround Fort St. Frederick, are the most northerly part on this side, where they have been seen. Of all the snakes which are found in Canada to the north of these mountains, none is poisonous enough to do any great harm to a man; and all without exception run away when they see a man. My remarks on the nature and properties of the rattle-snake, I have communicated to the royal Swedish academy of sciences *, and thither I refer my readers.

July 22d. This evening some people arrived with horses from Prairie, in order to fetch us. The governor had sent for them at my desire, because there were not yet any horses near Fort St. John, the place being only a year old, and the people had not had time to settle near it. Those who led the horses, brought letters to the governor from the governor-general of Canada, the Marquis la Galissoniere, dated at Quebec the fifteenth of this month, and from the vice-governor of Montreal, the Baron de Longueil, dated the twenty-first of the same month. They mentioned that I had been particularly recommended by the French court, and that the governor should supply me with every thing I wanted, and forward my journey; and at the same time the governor received two little casks of wine for me, which they thought would relieve me on my journey. At night we drank the kings of France and Sweden's health, under a salute from the cannon of the fort, and the health of the governor-general and others.

July 23d. This morning we set out on our journey to Prairie, from whence we intended to proceed to Montreal; the distance of Prairie from Fort St. John, by land,

* See their Memoirs for the year 1752.

is reckoned fix French miles, and from thence to Montreal two lieues (leagues) and a half, by the river St. Lawrence. At first we kept along the shore, so that we had on our right the Riviere de St. John (St. John's river.) This is the name of the mouth of the Lake Champlain, which falls into the river St. Lawrence, and is sometimes called Riviere de Champlain (Champlain river.) After we had travelled about a French mile, we turned to the left from the shore. The country was always low, woody, and pretty wet, though it was in the midst of summer; so that we found it difficult to get forward. But it is to be observed that Fort St. John was only built last summer, when this road was first made, and consequently it could not yet have acquired a proper degree of solidity. Two hundred and sixty men were three months at work, in making this road; for which they were fed at the expence of the government, and each received thirty sols every day; and I was told that they would again resume the work next autumn. The country hereabouts is low and woody, and of course the residence of millions of gnats and flies, which were very troublesome to us. After we had gone about three French miles, we came out of the woods, and the ground seemed to have been formerly a marsh, which was now dried up. From hence we had a pretty good prospect on all sides. On our right hand at a great distance we saw two high mountains, rising remarkably above the rest; and they were not far from Fort Champlain. We could likewise from hence see the high mountain which lies near Montreal; and our road went on nearly in a straight line. Soon after, we got again upon wet and low grounds, and after that into a wood which consisted chiefly of the fir with leaves which have a silvery underfide*. We found the soil which we passed over to day, very fine and rich, and when the woods are cleared and the ground cultivated, it will probably prove very fertile. There are no rocks, and hardly any stones near the road.

About four French miles from Fort St. John, the country makes quite another appearance. It is all cultivated, and a continual variety of fields with excellent wheat, pease, and oats, presented itself to our view; but we saw no other kinds of corn. The farms stood scattered, and each of them was surrounded by its corn-fields, and meadows; the houses are built of wood and very small. Instead of moss, which cannot be got here, they employ clay for stopping up the crevices in the walls. The roofs are made very much sloping, and covered with straw. The soil is good, flat, and divided by several rivulets; and only in a few places there are some little hills. The prospect is very fine from this part of the road, and as far as I could see the country, it was cultivated; all the fields were covered with corn, and they generally use summer wheat here. The ground is still very fertile, so that there is no occasion for leaving it to lie as fallow. The forests are pretty much cleared, and it is to be feared that there will be a time, when wood will become very scarce. Such was the appearance of the country quite up to Prairie, and the river St. Lawrence, which last we had now always in sight; and, in a word, this country was in my opinion the finest of North America, which I had hitherto seen.

About dinner-time we arrived at Prairie, which is situated on a little rising ground near the river St. Lawrence. We staid here this day, because I intended to visit the places in this neighbourhood before I went on.

Prairie de la Magdalene is a small village on the eastern side of the river St. Lawrence, about two French miles and a half from Montreal, which place lies N. W. from hence, on the other side of the river. All the country round Prairie is quite flat, and

* *Abies foliis subtus argenteis.*

has hardly any risings. On all sides are large corn-fields, meadows, and pastures. On the western side, the river St. Lawrence passes by, and has here a breadth of a French mile and a half, if not more. Most of the houses in Prairie are built of timber, with sloping wooden roofs, and the crevices in the walls are stopped up with clay. There are some little buildings of stone, chiefly of the black lime-stone, or of pieces of rock-stone, in which latter the enchafement of the doors and windows was made of the black lime-stone. In the midst of the village is a pretty church of stone, with a steeple at the west end of it, furnished with bells. Before the door is a cross, together with ladders, tongs, hammers, nails, &c., which are to represent all the instruments made use of at the crucifixion of our Saviour, and perhaps many others besides them. The village is surrounded with palisades, from four yards to five high, put up formerly as a barrier against the incursions of the Indians. Without these palisades are several little kitchen and pleasure gardens, but very few fruit-trees in them. The rising-grounds along the river are very inconsiderable here. In this place there was a priest, and a captain, who assumed the name of governor. The corn-fields round the place are extensive, and sown with summer-wheat; but rye, barley and maize are never seen. To the south-west of this place is a great fall in the river St. Lawrence, and the noise which it causes, may be plainly heard here. When the water in spring encreases in the river, on account of the ice which then begins to dissolve, it sometimes happens to rise so high as to overflow a great part of the fields, and, instead of fertilizing them as the river Nile fertilizes the Egyptian fields by its inundations, it does them much damage, by carrying a number of grasses and plants on them, the seeds of which spread the worst kind of weeds, and ruin the fields. These inundations oblige the people to take their cattle a great way off, because the water covers a great tract of land; but happily it never stays on it above two or three days. The cause of these inundations is generally owing to the stopping of ice in some part of the river.

The *zizania aquatica*, or folle avoine grows plentiful in the rivulet, or brook, which flows somewhat below Prairie.

July 24th. This morning I went from Prairie in a bateau to Montreal, upon the river St. Lawrence. The river is very rapid, but not very deep near Prairie, so that the yacht cannot go higher than Montreal, except in spring with the high water, when they can come up to Prairie, but no further. The town of Montreal may be seen at Prairie, and all the way down to it. On our arrival there we found a crowd of people at that gate of the town, where we were to pass through. They were very desirous of seeing us, because they were informed that some Swedes were to come to town; people of whom they had heard something, but whom they had never seen; and we are assured by every body, that we were the first Swedes that ever came to Montreal. As soon as we were landed, the governor of the town sent a captain to me, who desired I would follow him to the governor's house, where he introduced me to him. The Baron Longueuil was as yet vice-governor, but he daily expected his promotion from France. He received me more civilly and generously than I can well describe, and shewed me letters from the governor-general at Quebec, the Marquis de la Galissoniere, which mentioned that he had received orders from the French court to supply me with whatever I should want, as I was to travel in this country at the expence of His most Christian Majesty. In short Governor Longueuil loaded me with greater favours than I could expect or even imagine, both during my present stay and on my return from Quebec.

The difference between the manners and customs of the French in Montreal and Canada, and those of the English in the American colonies, is as great as that between the

the manners of those two nations in Europe. The women in general are handsome here; they are well bred, and virtuous, with an innocent and becoming freedom. They dress out very fine on Sundays; and though on the other days they do not take much pains with other parts of their dress, yet they are very fond of adorning their heads, the hair of which is always curled and powdered, and ornamented with glittering bodkins and aigrettes. Every day but Sunday, they wear a little neat jacket, and a short petticoat which hardly reaches half the leg, and in this particular they seem to imitate the Indian women. The heels of their shoes are high, and very narrow, and it is surprizing how they walk on them. In their knowledge of œconomy, they greatly surpass the English women in the plantations, who indeed have taken the liberty of throwing all the burthen of house-keeping upon their husbands, and sit in their chairs all day with folded arms*. The women in Canada on the contrary do not spare themselves, especially among the common people, where they are always in the fields, meadows, stables, &c. and do not dislike any work whatsoever. However, they seem rather remiss in regard to the cleaning of the utensils, and apartments; for sometimes the floors, both in the town and country, were hardly cleaned once in six months, which is a disagreeable sight to one who comes from amongst the Dutch and English, where the constant scouring and scrubbing of the floors is reckoned as important as the exercise of religion itself. To prevent the thick dust, which is thus left on the floor, from being noxious to the health, the women wet it several times a day, which renders it more consistent; repeating the aspersions as often as the dust is dry and rises again. Upon the whole, however, they are not averse to the taking a part in all the business of housekeeping; and I have with pleasure seen the daughters of the better sort of people, and of the governor himself, not too finely dressed, and going into kitchens and cellars, to look that every thing be done as it ought.

The men are extremely civil, and take their hats off to every person indifferently whom they meet in the streets. It is customary to return a visit the day after you have received one; though one should have some scores to pay in one day.

I have been told by some among the French, who had gone a beaver-hunting with the Indians to the northern parts of Canada, that the animals whose skins they endeavour to get, and which are there in great plenty, are beavers, wild-cats, or lynxes, and martens. These animals are the more valued, the farther they are caught to the north, for their skins have better hair, and look better than those which are taken more southward, and they became gradually better or worse, the more they are northward or southward.

White partridges† is the name which the French in Canada give to a kind of birds, abounding during winter near Hudson's Bay, and which are undoubtedly our ptarmigans, or snow-hens (*tetrao lagopus*). They are very plentiful at the time of a great frost, and when a considerable quantity of snow happens to fall. They are described to me as having rough white feet, and being white all over, except three or four black feathers in the tail; and they are reckoned very fine eating. From Edward's Natural History of Birds (page 72) it appears, that the ptarmigans are common about Hudson's Bay‡.

* It seems, that for the future, the fair sex in the English colonies in North-America, will no longer deserve the reproaches Mr. Kalm stigmatizes them with repeatedly, since it is generally reported, that the ladies of late have vied one with another, in providing their families with linen, stockings, and home-spun cloth of their own making, and that a general spirit of industry prevails among them at this present time. F.

† Perdrix blanches.

‡ See Br. Zool. Suppl. plate XIII. f. 1. E.

Hares are likewise said to be plentiful near Hudson's Bay, and they are abundant even in Canada, where I have often seen, and found them perfectly corresponding with our Swedish hares. In summer they have a brownish grey, and in winter a snowy white colour, as with us*.

Mechanics, such as architecture, cabinet-work, turning, and the like, were not yet so forward here as they ought to be; and the English, in that particular, out-do the French. The chief cause of this is, that scarce any other people than dismissed soldiers come to settle here, who have not had any opportunity of learning a mechanical trade, but have sometimes accidentally, and through necessity, been obliged to it. There are however some who have a good notion of mechanics, and I saw a person here who made very good clocks and watches, though he had had but very little instruction.

July 27th. The common house-flies have but been observed in this country about one hundred and fifty years ago, as I have been assured by several persons in this town, and in Quebec. All the Indians assert the same thing, and are of opinion that the common flies first came over here with the Europeans and their ships, which were stranded on this coast. I shall not dispute this; however, I know, that whilst I was in the deserts between Saratoga and Crown Point, or Fort St. Frederick, and sat down to rest or to eat, a number of our common flies always came and settled on me. It is therefore dubious, whether they have not been longer in America than the term above-mentioned, or whether they have been imported from Europe. On the other hand, it may be urged that the flies were left in those deserts at the time when fort Anne was yet in a good condition, and when the English often travelled there and back again; not to mention that several Europeans, both before and after that time, had travelled through those places, and carried the flies with them, which were attracted by their provisions.

Wild cattle are abundant in the southern parts of Canada, and have been there since times immemorial. They are plentiful in those parts, particularly where the Illinois Indians live, which are nearly in the same latitude with Philadelphia; but further to the north they are seldom observed. I saw the skin of a wild ox to-day; it was as big as one of the largest ox hides in Europe, but had better hair. The hair is dark brown, like that on a brown bear-skin. That which is close to the skin is as soft as wool. This hide was not very thick; and in general they do not reckon them so valuable as bear-skins in France. In winter they are spread on the floors, to keep the feet warm. Some of these wild cattle, as I am told, have a long and fine wool, as good, if not better, than sheep wool. They make stockings, cloth, gloves, and other pieces of worsted work of it, which look as well as if they were made of the best sheep wool; and the Indians employ it for several uses. The flesh equals the best beef in goodness and fatness. Sometimes the hides are thick, and may be made use of as cow-hides are in Europe. The wild cattle in general are said to be stronger and bigger than European cattle, and of a brown red colour. Their horns are but short, though very thick close to the head. These, and several other qualities, which they have in common with, and in greater perfection than the tame cattle, have induced some to endeavour to tame them; by which means they would obtain the advantages arising from their goodness of hair, and, on account of their great strength, be able to employ them successfully in agriculture. With this view some have repeatedly got young wild calves, and brought them up in Quebec, and other places, among the tame cattle; but they commonly died in three or four years time; and though they have seen people every day, yet they

* See a figure of this hare in its white state, in the Suppl. to Br. Zool. plate xlvii. f. 1. F.

have always retained a natural ferocity. They have constantly been very shy, pricked up their ears at the sight of a man, and trembled, or run about; so that the art of taming them has not hitherto been found out. Some have been of opinion, that these cattle cannot well bear the cold; as they never go north of the place I mentioned, though the summers be very hot, even in those northern parts. They think that, when the country about the Illinois is better peopled, it will be more easy to tame these cattle, and that afterwards they might more easily be used to the northerly climates*. The Indians and French in Canada make use of the horns of these creatures to put gunpowder in.

The peace which was concluded between France and England was proclaimed this day. The soldiers were under arms; the artillery on the walls was fired off, and some salutes were given by the small fire-arms. All night some fire-works were exhibited, and the whole town was illuminated. All the streets were crowded with people till late at night. The governor invited me to supper, and to partake of the joy of the inhabitants. There were present a number of officers, and persons of distinction; and the festival concluded with the greatest joy.

July 28th. This morning I accompanied the governor, Baron Longueuil, and his family, to a little island called Magdalene, which is his own property. It lies in the river St. Lawrence, directly opposite to the town, on the eastern side. The governor had here a very neat house, though it was not very large, a fine extensive garden, and a court-yard. The river passes between the town and this island, and is very rapid. Near the town it is deep enough for yachts; but towards the island it grows more shallow, so that they are obliged to push the boats forwards with poles. There was a mill on the island, turned by the mere force of the stream, without an additional mill-dam.

The smooth sumach, or *rhus glabra*, grows in great plenty here. I have nowhere seen it so tall as in this place, where it had sometimes the height of eight yards, and a proportionable thickness.

Sassafras is planted here; for it is never found wild in these parts, Fort Anne being the most northerly place where I have found it wild. Those shrubs which were on the island had been planted many years ago; however, they were but small shrubs, from two to three feet high, and scarce so much. The reason is, because the stem is killed every winter, almost down to the very root, and must produce new shoots every spring, as I have found from my own observations here; and so it appeared to be near the Forts Anne, Nicholson, and Oswego. It will therefore be in vain to attempt to plant sassafras in a very cold climate.

The red mulberry-trees (*morus rubra*, Linn.) are likewise planted here. I saw four or five of them about five yards high, which the governor told me had been twenty years in this place, and were brought from more southerly parts, since they do not grow wild near Montreal. The most northerly place, where I have found it growing spontaneously, is about twenty English miles north of Albany, as I have been assured by the country people who live in that place, and who at the same time informed me, that it was very scarce in the woods. When I came to Saratoga, I enquired whether any of these mulberry-trees had been found in that neighbourhood? but every body told me, that they were never seen in those parts, but that the before-mentioned place,

* But by this means they would lose that superiority which in their wild state they have over the tame cattle; as all the progenies of tamed animals degenerate from the excellence of their wild and free ancestors. F.

twenty miles above Albany, is the most northern one where they grow. Those mulberry-trees, which were planted on this island, succeed very well, though they are placed in a poor soil. Their foliage is large and thick, but they did not bear any fruits this year. However, I was informed that they can bear a considerable degree of cold.

The water-beech was planted here in a shady place, and was grown to a great height. All the French hereabouts call it *cotonier* *. It is never found wild near the river St. Lawrence; nor north of Fort St. Frederick, where it is now very scarce.

The red cedar is called *cedre rouge* by the French, and it was likewise planted in the governor's garden, whether it had been brought from more southern parts, for it is not to be met with in the forests hereabouts. However, it came on very well here.

About half an hour after seven in the evening we left this pleasant island, and an hour after our return the Baron de Longueuil received two agreeable pieces of news at once. The first was, that his son, who had been two years in France, was returned; and the second, that he had brought with him the royal patents for his father, by which he was appointed governor of Montreal, and the country belonging to it.

They make use of fans here, which are made of the tails of the wild turkeys. As soon as the birds are shot, their tails are spread like fans, and dried, by which means they keep their figure. The ladies and the men of distinction in town wear these fans, when they walk in the streets, during the intenseness of the heat.

All the grass on the meadows round Montreal consists chiefly of a species of meadow-grass, or the *poa capillaris*, Linn. †. This is a very slender grass, which grows very close, and succeeds even on the driest hills. It is however not rich in foliage; and the slender stalk is chiefly used for hay. We have numerous kinds of grasses in Sweden, which make infinitely finer meadows than this.

July 30th. The wild plumb-trees grow in great abundance on the hills, along the rivulets about the town. They were so loaded with fruit, that the boughs were quite bent downwards by the weight. The fruit was not yet ripe, but when it comes to that perfection, it has a red colour and a fine taste, and preserves are sometimes made of it.

Black currants (*ribes nigrum*, Linn.) are plentiful in the same places, and its berries were ripe at this time. They are very small, and not by far so agreeable as those in Sweden.

Parsnips grow in great abundance on the rising banks of rivers, along the corn-fields, and in other places. This led me to think, that they were original natives of America, and not first brought over by the Europeans. But on my journey into the country of the Iroquois, where no European ever had a settlement, I never once saw it, though the soil was excellent; and from hence it appears plain enough, that it was transported hither from Europe, and is not originally an American plant; and therefore it is in vain sought for in any part of this continent, except among the European settlements.

August 1st. The governor-general of Canada commonly resides at Quebec; but he frequently goes to Montreal, and generally spends the winter there. In summer they chiefly reside at Quebec, on account of the king's ships, which arrive there during that season, and bring him letters, which he must answer; besides other business which comes in about that time. During his residence in Montreal he lives in

* Cotton-tree. Mr. Kalm mentions before, that this name is given to the *asclepias syriaca*. F.

† Mr. Kalm describes it thus: *poa culmo subcompresso panicula tenuissima, spiculis trifloris minimis, flosculis basi pubescentibus*.

the castle, as it is called, which is a large house of stone, built by Governor-general Vaudreuil, and still belonging to his family, who hire it to the King.

They have in Canada scarce any other but paper-currency. I hardly ever saw any coin, except French sols, consisting of brass, with a very small mixture of silver; they were quite thin by constant circulation, and were valued at a sol and a half. The bills are not printed, but written. Their origin is as follows: the French King having found it very dangerous to send money for the pay of the troops, and other purposes, over to Canada, on account of privateers, shipwrecks, and other accidents; he ordered that instead of it the intendant, or King's steward, at Quebec, or the commissary at Montreal, should write bills for the value of the sums which are due to the troops, and which they distribute to each soldier. On these bills is inscribed, that they bear the value of such or such a sum, till next October; and they are signed by the intendant, or the commissary; and in the interval they bear the value of money. In the month of October, at a certain stated time, every one brings the bills in his possession to the intendant at Quebec, or the commissary at Montreal, who exchanges them for bills of exchange upon France, which are paid there in lawful money, at the King's exchequer, as soon as they are presented. If the money is not yet wanted, the bill may be kept till next October, when it may be exchanged by one of those gentlemen, for a bill upon France. The paper money can only be delivered in October, and exchanged for bills upon France. They are of different values, and some do not exceed a livre, and perhaps some are still less. Towards autumn, when the merchants' ships come in from France, the merchants endeavour to get as many bills as they can, and change them for bills upon the French treasury. These bills are partly printed, spaces being left for the name, sum, &c.; but the first bill, or paper currency is all wrote, and is therefore subject to be counterfeited, which has sometimes been done; but the great punishments which have been inflicted upon the authors of these forged bills, and which generally are capital, have deterred people from attempting it again; so that examples of this kind are very scarce at present. As there is a great want of small coin here, the buyers or sellers were frequently obliged to suffer a small loss, and could pay no intermediate prices between one livre and two*.

They commonly give one hundred and fifty livres a year to a faithful and diligent footman, and to a maid-servant of the same character one hundred livres. A journeyman to an artist gets three or four livres a day, and a common labouring man gets thirty or forty sols a day. The scarcity of labouring people occasions the wages to be so high; for almost every body finds it so easy to set up as a farmer in this uncultivated country, where he can live well, and at a small expence, that he does not care to serve and work for others.

Montreal is the second town in Canada, in regard to size and wealth; but it is the first on account of its fine situation, and mild climate. Somewhat above the town, the river St. Lawrence divides into several branches, and by that means forms several islands, and among which the isle of Montreal is the greatest. It is ten French miles long, and near four broad, in its broadest part. The town of Montreal is built on the eastern side of the island, and close to one of the most considerable branches of the river St. Lawrence; and thus it receives a very pleasant and advantageous situation. The town has a quadrangular form, or rather it is a rectangular parallelogram, the long and

* The sol is the lowest coin in Canada, and is about the value of a penny in the English colonies. A livre, or franc, (for they are both the same) contains twenty sols; and three livres, or francs, make an ecu, or crown.

eastern side of which extends along the great branch of the river. On the other side it is surrounded with excellent corn-fields, charming meadows, and delightful woods. It has got the name of Montreal from a great mountain, about half a mile westwards of the town, and lifting its head far above the woods. Monsieur Cartier, one of the first Frenchmen who surveyed Canada more accurately, called this mountain so, on his arrival in this island, in the year 1535, when he visited the mountain, and the Indian town Hoshelaga near it. The priests who, according to the Roman Catholic way, would call every place in this country after some faint or other, calling Montreal, Ville Marie, but they have not been able to make this name general, for it has always kept its first name. It is pretty well fortified, and surrounded with a high and thick wall. On the east side it has the river St. Lawrence, and on all the other sides a deep ditch filled with water, which secures the inhabitants against all danger from the sudden incursions of the enemy's troops. However, it cannot long stand a regular siege, because it requires a great garrison, on account of its extent; and because it consists chiefly of wooden houses. Here are several churches, of which I shall only mention that belonging to the friars of the order of St. Sulpitius, that of the Jesuits, that of the Franciscan friars, that belonging to the nunnery, and that of the hospital; of which the first is however by far the finest, both in regard to its outward and inward ornaments, not only in this place, but in all Canada. The priests of the seminary of St. Sulpitius have a fine large house, where they live together. The college of the Franciscan friars is likewise spacious, and has good walls, but it is not so magnificent as the former. The college of the Jesuits is small, but well built. To each of these three buildings are annexed fine large gardens, for the amusement, health, and use of the communities to which they belong. Some of the houses in the town are built of stone, but most of them are of timber, though very neatly built. Each of the better sort of houses has a door towards the street, with a seat on each side of it, for amusement and recreation in the morning and evening. The long streets are broad and strait, and divided at right angles by the short ones: some are paved, but most of them very uneven. The gates of the town are numerous; on the east side of the town towards the river are five, two great and three lesser ones; and on the other side are likewise several. The governor-general of Canada, when he is at Montreal, resides in the castle, which the government hires for that purpose of the family of Vaudreuil; but the governor of Montreal is obliged to buy or hire a house in town; though I was told, that the government contributed towards paying the rents.

In the town is a nunnery, and without its walls half a one; for though the last was quite ready, however, it had not yet been confirmed by the pope. In the first they do not receive every girl that offers herself; for their parents must pay about five hundred ecus, or crowns, for them. Some indeed are admitted for three hundred ecus, but they are obliged to serve those who pay more than they. No poor girls are taken in.

The King has erected a hospital for sick soldiers here. The sick person there is provided with every thing he wants, and the King pays twelve sols every day for his stay, attendance, &c. The surgeons are paid by the King. When an officer is brought to this hospital, who is fallen sick in the service of the crown, he receives victuals and attendance gratis: but if he has got a sickness in the execution of his private concerns, and comes to be cured here, he must pay it out of his own purse. When there is room enough in the hospital, they likewise take in some of the sick inhabitants of the town and country. They have the medicines, and the attendance of the surgeons, gratis, but must pay twelve sols per day for meat, &c.

Every Friday is a market-day, when the country people come to the town with provisions, and those who want them must supply themselves on that day, because it is the only market-day in the whole week. On that day likewise a number of Indians come to town, to sell their goods, and buy others.

The declination of the magnetic needle was here ten degrees and thirty-eight minutes west. Mr. Gillion, one of the priests here, who had a particular taste for mathematics and astronomy, had drawn a meridian in the garden of the seminary, which he said he had examined repeatedly by the sun and stars, and found to be very exact. I compared my compass with it, taking care that no iron was near it, and found its declination just the same as that which I have before mentioned.

According to Monsieur Gillion's observations, the latitude of Montreal is forty-five degrees and twenty-seven minutes.

Monsieur Pontarion, another priest, had made thermometrical observations in Montreal, from the beginning of this year 1749. He made use of Reaumur's thermometer, which he placed sometimes in the window half open, and sometimes in one quite open, and accordingly it will seldom mark the greatest degree of cold in the air. However, I shall give a short abstract of his observations for the winter months. In January the greatest cold was on the 18th day of the month, when the Reaumurian thermometer was twenty-three degrees below the freezing point. The least degree of cold was on the 31st of the same month, when it was just at the freezing point, but most of the days of this month it was from twelve to fifteen degrees below the freezing point. In February the greatest cold was on the 19th and 25th, when the thermometer was fourteen degrees below the freezing point; and the least was on the 3d day of that month, when it rose eight degrees above the freezing point; but it was generally eleven degrees below it. In March the greatest cold was on the 3d, when it was ten degrees below the freezing point, and on the 22d, 23d, and 24th, it was mildest, being fifteen degrees above it: in general it was four degrees below it. In April the greatest degree of cold happened on the 7th, the thermometer being five degrees below the freezing point; the 25th was the mildest day, it being twenty degrees above the freezing point; but in general it was twelve degrees above it. These are the contents chiefly of Monsieur Pontarion's observations during those months; but I found, by the manner he made his observations, that the cold had every day been from four to six degrees greater than he had marked it. He had likewise marked in his journal, that the ice in the river St. Lawrence broke on the 3d of April at Montreal, and only on the 20th day of that month at Quebec. On the 3d of May some trees began to flower at Montreal, and on the 12th the hoary frost was so great, that the trees were quite covered with it, as with snow. The ice in the river close to this town is every winter above a French foot thick, and sometimes it is two of such feet, as I was informed by all whom I consulted on that head.

Several of the friars here told me, that the summers were remarkably longer in Canada, since its cultivation, than they used to be before; it begins earlier, and ends later. The winters, on the other hand, are much shorter; but the friars were of opinion, that they were as hard as formerly, though they were not of the same duration; and likewise, that the summer at present was no hotter than it used to be. The coldest winds at Montreal are those from the north and north-west.

Aug. 2d. Early this morning we left Montreal, and went in a bateau on our journey to Quebec, in company with the second major of Montreal, M. de Sermonville. We fell down the river St. Lawrence, which was here pretty broad on our left; on the north-west side was the isle of Montreal, and on the right a number of other isles, and

the shore. The isle of Montreal was closely inhabited along the river; and it was very plain, and the rising land near the shore consisted of pure mould, and was between three or four yards high. The woods were cut down along the river-side, for the distance of an English mile. The dwelling-houses were built of wood, or stone, indiscriminately, and white-washed on the outside. The other buildings, such as barns, stables, &c. were all of wood. The ground next to the river was turned either into corn-fields or meadows. Now and then we perceived churches on both sides of the river, the steeples of which were generally on that side of the church which looked towards the river, because they are not obliged here to put the steeples on the west end of the churches. Within six French miles of Montreal we saw several islands of different sizes on the river, and most of them were inhabited; and if some of them were without houses on them, they were sometimes turned into corn-fields, but generally into meadows. We saw no mountains, hills, rocks, or stones to-day, the country being flat throughout, and consisting of pure mould.

All the farms in Canada stand separate from each other, so that each farmer has his possessions entirely distinct from those of his neighbour. Each church, it is true, has a little village near it; but that consists chiefly of the parsonage, a school for the boys and girls of the place, and of the houses of tradesmen, but rarely of farm-houses; and if that was the case, yet their fields were separated. The farm-houses hereabouts are generally built all along the rising banks of the river, either close to the water or at some distance from it, and about three or four arpens from each other. To some farms are annexed small orchards: but they are in general without them; however, almost every farmer has a kitchen-garden.

I have been told by all those who have made journies to the southern parts of Canada, and to the river Mississippi, that the woods there abound with peach-trees, which bear excellent fruit, and that the Indians of those parts say, that those trees have been there since time immemorial.

The farm-houses are generally built of stone, but sometimes of timber, and have three or four rooms. The windows are seldom of glass, but most frequently of paper. They have iron stoves in one of the rooms, and chimnies in the rest. The roofs are covered with boards. The crevices and chinks are filled up with clay. The other buildings are covered with straw.

There are several crosses put up by the road side, which is parallel to the shores of the river. These crosses are very common in Canada, and are put up to excite devotion in the traveller. They are made of wood, five or six yards high, and proportionally broad. In that side which looks towards the road is a square hole, in which they place an image of our Saviour, the cross, or of the holy Virgin, with the child in her arms; and before that they put a piece of glass, to prevent its being spoiled by the weather. Those crosses, which are not far from churches, are very much adorned, and they put up about them all the instruments which they think the Jews employed in crucifying our Saviour, such as a hammer, tongs, nails, a flask of vinegar, and perhaps many more than were really made use of. A figure of the cock, which crowed when St. Peter denied our Lord, is commonly put at the top of the cross.

The country on both sides was very delightful to-day, and the fine state of its cultivation added greatly to the beauty of the scene. It could really be called a village, beginning at Montreal, and ending at Quebec, which is a distance of more than one hundred and eighty miles; for the farm-houses are never above five arpens, and sometimes but three, asunder, a few places excepted. The prospect is exceedingly beautiful, when the river goes on for some miles together in a strait line, because it then

shortens the distances between the houses, and makes them form exactly one continued village.

All the women in the country, without exception, wear caps of some kind or other. Their jackets are short, and so are their petticoats, which scarce reach down to the middle of their legs; and they have a silver cross hanging down on the breast. In general they are very laborious; however, I saw some, who, like the English women in the colonies, did nothing but prattle all the day. When they have any thing to do within doors, they (especially the girls) commonly sing songs, in which the words *Amour* and *Cœur* are very frequent. In the country it is usual, that when the husband receives a visit from persons of rank, and dines with them, his wife stands behind and serves him; but in the towns, the ladies are more distinguished, and would willingly assume an equal, if not a superior, power to their husbands. When they go out of doors they wear long cloaks, which cover all their other clothes, and are either grey, brown, or blue. The men sometimes make use of them, when they are obliged to go in the rain. The women have the advantage of being in a *dishabille* under these cloaks, without any body's perceiving it.

We sometimes saw wind-mills near the farms. They were generally built of stone, with a roof of boards, which, together with its flyers, could be turned to the wind occasionally.

The breadth of the river was not always equal to-day; in the narrowest place it was about a quarter of an English mile broad; in other parts it was near two English miles. The shore was sometimes high and steep, and sometimes low, or sloping.

At three o'clock this afternoon we passed by the river, which falls into the river St. Lawrence, and comes from Lake Champlain, in the middle of which latter is a large island. The yachts which go between Montreal and Quebec, go on the south-east side of this island, because it is deeper there; but the boats prefer the north-west side, because it is nearer, and yet deep enough for them. Besides this island there are several more hereabouts, which are all inhabited. Somewhat further, the country on both sides the river is uninhabited, till we come to the lac St. Pierre; because it is so low, as to be quite overflowed at certain times of the year. To make up for this deficiency, the country, I am told, is as thickly inhabited further from the river, as we found it along the banks of the river.

Lac St. Pierre is a part of the river St. Lawrence, which is so broad that we could hardly see any thing but sky and water before us, and I was every where told, that it is seven French miles long, and three broad. From the middle of this lake as it is called, you see a large high country in the west, which appears above the woods. In the lake are many places covered with a kind of rush, or *scirpus palustris*, Linn. There are no houses in sight on either side of the lake, because the land is rather too low there; and in spring the water rises so high, that they may go with boats between the trees. However, at some distance from the shores, where the ground is higher, the farms are close together. We saw no islands in the lake this afternoon, but the next day we met with some.

Late in the evening we left lake St. Pierre, and rowed up a little river called Riviere de Loup, in order to come to a house where we might pass the night. Having rowed about an English mile, we found the country inhabited on both sides of the river. Its shores are high; but the country in general is flat. We passed the night in a farmhouse. The territory of Montreal extends to this place; but here begins the jurisdiction of the governor of Trois Rivières, to which place they reckon eight French miles from hence.

Aug. 3d. At five o'clock in the morning we set out again, and first rowed down the little river till we came into the lake St. Pierre, which we went downwards. After we had gone a good way, we perceived a high chain of mountains in the north-west, which were very much elevated above the low, flat country. The north-west shore of lake St. Pierre was now in general very closely inhabited; but on the south-east side we saw no houses, and only a country covered with woods, which is sometimes said to be under water, but behind which there are, as I am told, a great number of farms. Towards the end of the lake, the river went into its proper bounds again, being not above a mile and a half broad, and afterwards it grows still narrower. From the end of lake St. Pierre to Trois Rivières, they reckon three French miles, and about eleven o'clock in the morning we arrived at the latter place, where we attended divine service.

Trois Rivières is a little market town, which had the appearance of a large village; it is however reckoned among the three great towns of Canada, which are Quebec, Montreal, and Trois Rivières. It is said to lie in the middle between the two first, and thirty French miles distant from each. The town is built on the north side of the river St. Lawrence, on a flat, elevated sand, and its situation is very pleasant. On one side the river passes by, which is here an English mile and a half broad. On the other side, are fine corn-fields, though the soil is very much mixed with sand. In the town are two churches of stone, a nunnery, and a house for the friars of the order of St. Francis. This town is likewise the seat of the third governor in Canada, whose house is likewise of stone. Most of the other houses are of timber, a single story high, tolerably well built, and stand very much asunder; and the streets are crooked. The shore here consists of sand, and the rising grounds along it are pretty high. When the wind is very violent here, it raises the sand, and blows it about the streets, making it very troublesome to walk in them. The nuns, which are about twenty-two in number, are reckoned very ingenious in all kinds of needle-work. This town formerly flourished more than any other in Canada, for the Indians brought their goods to it from all sides; but since that time they go to Montreal and Quebec, and to the English, on account of their wars with the Iroquese, or five nations, and for several other reasons, so that this town is at present very much reduced by it. Its present inhabitants live chiefly by agriculture, though the neighbouring iron-works may serve in some measure to support them. About an English mile below the town, a great river falls into the river St. Lawrence, but first divides into three branches, so that it appears as if three rivers disembogued themselves there. This has given occasion to call the river and this town, Trois Rivières (the Three Rivers.)

The tide goes about a French mile above Trois Rivières, though it is so trifling as to be hardly observable. But about the equinoxes, and at the new moons and full moons in spring and autumn, the difference between the highest and lowest water is two feet. Accordingly the tide in this river goes very far up, for from the above-mentioned place to the sea they reckon about a hundred and fifty French miles.

Whilst my company were resting, I went on horseback to view the iron-work. The country which I passed through was pretty high, sandy, and generally flat. I saw neither stones nor mountains here.

The iron-work, which is the only one in this country, lies three miles to the west of Trois Rivières. Here are two great forges, besides two lesser ones to each of the great ones, and under the same roof with them. The bellows were made of wood, and every thing else, as it is in Swedish forges. The melting ovens stand close to the forges, and are the same as ours. The ore is got two French miles and a half from the iron
works

works, and is carried thither on sledges. It is a kind of moor ore *, which lies in veins, within six inches or a foot from the surface of the ground. Each vein is from six to eighteen inches deep, and below it is a white sand. The veins are surrounded with this sand on both sides, and covered at the top with a thin mould. The ore is pretty rich and lies in loose lumps in the veins, of the size of two fists, though there are a few which are near eighteen inches thick. These lumps are full of holes which are filled with ochre. The ore is so soft that it may be crushed betwixt the fingers. They make use of a grey lime-stone, which is broke in the neighbourhood, for promoting the fusibility of the ore; to that purpose they likewise employ a clay marle, which is found near this place. Charcoals are to be had in great abundance here, because all the country round this place is covered with woods, which have never been stirred. The charcoals from ever-green trees, that is, from the fir kind, are best for the forge, but those of deciduous trees are best for the smelting oven. The iron which is here made, was to me described as soft, pliable, and tough, and is said to have the quality of not being attacked by rust so easily as other iron; and in this point there appears a great difference between the Spanish iron and this in ship building. This iron-work was first founded in 1737, by private persons, who afterwards ceded it to the king; they cast cannon and mortars here of different sizes, iron stoves, which are in use all over Canada, kettles, &c., not to mention the bars which are made here. They have likewise tried to make steel here, but cannot bring it to any great perfection, because they are unacquainted with the best manner of preparing it. Here are many officers and overseers, who have very good houses, built on purpose for them. It is agreed on all hands, that the revenues of the iron-work do not pay the expences which the king must every year be at in maintaining it. They lay the fault on the bad state of population, and say that the few inhabitants in the country have enough to do with agriculture, and that it therefore costs great trouble and large sums to get a sufficient number of workmen. But however plausible this may appear, yet it is surprising that the king should be a loser in carrying on this work; for the ore is easily broken, very near the iron-work, and very fusible. The iron is good, and can be very conveniently dispersed over the country. This is moreover the only iron-work in the country, from which every body must supply himself with iron tools, and what other iron he wants. But the officers and servants belonging to the iron-work, appear to be in very affluent circumstances. A river runs down from the iron-work into the river St. Lawrence, by which all the iron can be sent in boats throughout the country at a low rate. In the evening I returned again to Trois Rivières.

Aug. 4th. At the dawn of day we left this place and went on towards Quebec. We found the land on the north side of the river somewhat elevated, sandy, and closely inhabited along the water-side. The south-east shore, we were told, is equally well inhabited; but the woods along that shore prevented our seeing the houses, which are built further up in the country, the land close to the river being so low as to be subject to annual inundations. Near Trois Rivières, the river grows somewhat narrow; but it enlarges again, as soon as you come a little below that place, and has the breadth of above two English miles.

As we went on, we saw several churches of stone, and often very well built ones. The shores of the river are closely inhabited for about three quarters of an English mile

* *Tophus tubalcaini*, Linn. Syst. Nat. III. p. 187. n. 5. *Minera ferri subaquosa nigro cærulescens*. Wall. Mineral. p. 263. Germ. Ed. p. 340. n. 3. Iron ochres in the shape of crusts, are sometimes cavernous, as the brush ore. Forster's Mineral. p. 48.

up the country; but beyond that, the woods and the wilderness increase. All the rivulets falling into the river St. Lawrence are likewise well inhabited on both sides. I observed throughout Canada, that the cultivated lands lie only along the river St. Lawrence, and the other rivers in the country, the environs of towns excepted, round which the country is all cultivated and inhabited within the distance of twelve or eighteen English miles. The great islands in the river are likewise inhabited.

The shores of the river now became higher, more oblique and steep, however they consisted chiefly of earth. Now and then some rivers, or great brooks, fall into the river St. Lawrence, among which one of the most considerable is the Riviere Puante, which unites to the south-east side with the river St. Lawrence, about two French miles below Trois Rivières, and has on its banks, a little way from its mouth, a town called Becancourt, which is wholly inhabited by Abenakee Indians, who have been converted to the Roman Catholic religion, and have Jesuits among them. At a great distance, on the north-west side of the river, we saw a chain of very high mountains, running from north to south, elevated above the rest of the country, which is quite flat here without any remarkable hills.

Here were several lime kilns along the river; and the lime-stone employed in them is broke in the neighbouring high grounds. It is compact and grey, and the lime it yields is pretty white.

The fields here are generally sown with wheat, oats, maize, and pease. Gourds and water-melons are planted in abundance near the farms.

A humming bird (*trochilus colubris*) flew among the bushes, in a place where we landed to-day. The French call it oiseau mouche, and say it is pretty common in Canada; and I have seen it since several times at Quebec.

About five o'clock in the afternoon we were obliged to take our night's lodgings on shore, the wind blowing very strong against us, and being attended with rain. I found that the nearer we came to Quebec, the more open and free from woods was the country. The place where we passed the night is distant from Quebec twelve French miles.

They have a very peculiar method of catching fish near the shore here. They place hedges along the shore, made of twisted osiers, so close that no fish can get through them, and from one foot to a yard high, according to the different depth of the water. For this purpose they choose such places where the water runs off during the ebb, and leaves the hedges quite dry. Within this inclosure they place several wheels, or fish-traps, in the form of cylinders, but broader below. They are placed upright, and are about a yard high, and two feet and a half wide: on one side near the bottom is an entrance for the fishes, made of twigs, and sometimes of yarn made into a net. Opposite to this entrance, on the other side of the wheel, looking towards the lower part of the river, is another entrance, like the first, and leading to a box of boards about four feet long, two deep, and two broad. Near each of the wheels is a hedge, leading obliquely to the long hedge, and making an acute angle with it. This latter hedge is made in order to lead the fish into the trap, and it is placed on that end of the long hedge which looks towards the upper part of the river; now when the tide comes up the river, the fish, and chiefly the eels, go up with it along the river side; when the water begins to ebb, the fish likewise go down the river, and meeting with the hedges, they swim along them, till they come through the wheels into the boxes of boards, at the top of which there is a hole with a cover, through which the fish could

could be taken out. This apparatus is chiefly made on account of the eels. In some places hereabouts they place nets instead of the hedges of twigs.

The shores of the river now consisted no more of pure earth; but of a species of slate. They are very steep, and nearly perpendicular here, and the slates of which they consist are black, with a brown cast; and divisible into thin shivers, no thicker than the back of a knife. These slates moulder as soon as they are exposed to the open air, and the shore is covered with grains of small sand, which are nothing but particles of such mouldered slates. Some of the strata run horizontal, others obliquely, dipping to the south, and rising to the north, and sometimes the contrary way. Sometimes they form bendings like large semicircles: sometimes a perpendicular line cuts off the strata, to the depth of two feet; and the slates on both sides of the line form a perpendicular and smooth wall. In some places hereabouts, they find amongst the slates a stratum about four inches thick of a grey, compact, but pretty soft lime-stone, of which the Indians for many centuries have made, and the French at present still make, tobacco-pipes*.

August 5th. This morning we continued our journey by rowing, the contrary wind hindering us from sailing. The appearance of the shores was the same as yesterday; they were high, pretty steep, and quite perpendicular; and consisted of the black slate before described. The country at the top was a plain without eminences, and closely inhabited along the river, for about the space of an English mile and a half inland. Here are no islands in this part of the river, but several stony places, perceptible at low water only, which have several times proved fatal to travellers. The breadth of the river varies; in some parts it was a little more than three quarters of a mile, in others half a mile, and in some above two miles. The inhabitants made use of the same method of catching eels along the shores here, as that which I have just before mentioned. In many places they make use of nets made of osiers instead of the hedge.

Bugs (*cimex lectularius*) abound in Canada; and I met with them in every place where I lodged, both in the towns and country, and the people know of no other remedy for them than patience.

The crickets (*gryllus domesticus*) are also abundant in Canada, especially in the country, where these disagreeable guests lodge in the chimnies; nor are they uncommon in the towns. They stay here both summer and winter, and frequently cut cloths in pieces for pastime.

The cock-roaches (*blatta orientalis*) have never been found in the houses here.

The shores of the river grow more sloping as you come nearer to Quebec. To the northward appears a high ridge of mountains. About two French miles and a half from Quebec the river becomes very narrow, the shores being within the reach of a musket-shot from each other. The country on both sides was sloping, hilly, covered with trees, and had many small rocks; the shore was stony. About four o'clock in the afternoon we happily arrived at Quebec. The city does not appear till one is close to it, the prospect being intercepted by a high mountain on the south side. However, a part of the fortifications appear at a good distance, being situate on the same mountain. As soon as the soldiers, who were with us, saw Quebec, they called out, that

* This lime-stone seems to be a marle, or rather a kind of stone-marl: for there is a whitish kind of it in the Krim Tartary, and near Stiva or Thebes, in Greece, which is employed by the Turks and Tartars for making heads of pipes, and that from the first place is called Keffekil, and in the latter, Sea-Scum: it may be very easily cut, but grows harder in time. F.

all those who had never been there before should be ducked, if they did not pay something to release themselves. This custom even the governor-general of Canada is obliged to submit to, on his first journey to Montreal. We did not care when we came in sight of this town to be exempted from this old custom, which is very advantageous to the rowers, as it enables them to spend a merry evening on their arrival at Quebec, after their troublesome labour.

Immediately after my arrival, the officer who had accompanied me from Montreal, led me to the palace of the then vice-governor-general of Canada, the Marquis la Galissonniere, a nobleman of uncommon qualities, who behaved towards me with extraordinary goodness, during the time he staid in this country. He had already ordered some apartments to be got ready for me, and took care to provide me with every thing I wanted; besides honouring me so far to invite me to his table, almost every day I was in town.

August 6th. Quebec, the chief city in Canada, lies on the western shore of the river St. Lawrence, close to the water's edge, on a neck of land, bounded by that river on the east side, and by the river St. Charles on the north side; the mountain, on which the town is built, rises still higher on the south side, and behind it begin great pastures; and the same mountain likewise extends a good way westward. The city is distinguished into the lower and the upper *. The lower lies on the river eastward of the upper. The neck of land I mentioned before, was formed by the dirt and filth, which had from time to time been accumulated there, and by a rock which lay that way, not by any gradual diminution of the water. The upper city lies above the other, on a high hill, and takes up five or six times the space of the lower, though it is not quite so populous. The mountain, on which the upper city is situated, reaches above the houses of the lower city. Notwithstanding the latter are three or four stories high, and the view, from the palace of the lower city (part of which is immediately under it) is enough to cause a swimming of the head. There is only one easy way of getting to the upper city, and there part of the mountain has been blown up. This road is very steep, notwithstanding it is made winding and serpentine. However, they go up and down it in carriages, and with waggons. All the other roads up the mountain are so steep, that it is very difficult to clime to the top of them. Most of the merchants live in the lower city, where the houses are built very close together. The streets in it are narrow, very rugged, and almost always wet. There is likewise a church, and a small market-place. The upper city is inhabited by people of quality, by several persons belonging to the different offices, by tradesmen, and others. In this part are the chief buildings of the town, among which the following are worthy particular notice.

I. The palace is situated on the west or steepest side of the mountain, just above the lower city. It is not properly a palace, but a large building of stone, two stories high, extending north and south. On the west side of it is a court-yard, surrounded partly with a wall, and partly with houses. On the east side, or towards the river, is a gallery as long as the whole building, and about two fathom broad, paved with smooth flags, and included on the outides by iron rails, from whence the city and the river exhibit a charming prospect. This gallery serves as a very agreeable walk after dinner, and those who come to speak with the governor-general wait here till he is at leisure. The palace is the lodging of the governor-general of Canada, and a number of soldiers mount the guard before it, both at the gate and in the court-yard; and

* La haute ville and la basse ville.

when the governor, or the bishop, comes in or goes out, they must all appear in arms, and beat the drum. The governor-general has his own chapel where he hears prayers; however he often goes to mass at the church of the Recolets*, which is very near the palace.

II. The churches in this town are seven or eight in number, and all built of stone.

1. The cathedral church is on the right hand, coming from the lower to the upper city, somewhat beyond the bishop's house. The people were at present employed in ornamenting it. On its west side is a round steeple, with two divisions, in the lower of which are some bells. The pulpit, and some other parts within the church, are gilt. The seats are very fine.

2. The Jesuits church is built in the form of a cross, and has a round steeple. This is the only church that has a clock, and I shall mention it more particularly below.

3. The Recolets church is opposite the gate of the palace, on the west side, looks well, and has a pretty high pointed steeple, with a division below for the bells.

4. The church of the Ursulines has a round spire.

5. The church of the hospital.

6. The bishop's chapel.

7. The church in the lower city was built in 1690, after the town had been delivered from the English, and is called Notre Dame de la Victoire. It has a small steeple in the middle of the roof, square at the bottom, and round at the top.

8. The little chapel of the governor-general may likewise be ranked amongst these churches.

III. The bishop's house is the first, on the right hand, coming from the lower to the upper town. It is a fine large building, surrounded by an extensive court-yard and kitchen garden on one side, and by a wall on the other.

IV. The college of the Jesuits, which I will describe more particularly. It has a much more noble appearance, in regard to its size and architecture, than the palace itself, and would be proper for a palace, if it had a more advantageous situation. It is about four times as large as the palace, and is the finest building in town. It stands on the north side of a market, on the south side of which is the cathedral.

V. The house of the Recolets lies to the west, near the palace and directly over against it, and consists of a spacious building, with a large orchard, and kitchen garden. The house is two stories high; in each story is a narrow gallery with rooms and halls on one or both sides.

VI. The Hôtel de Dieu, where the sick are taken care of, shall be described in the sequel. The nuns that serve the sick, are of the Augustine order.

VII. The house of the clergy† is a large building, on the north-east side of the cathedral. Here is on one side a spacious court, and on the other towards the river, a great orchard, and kitchen garden. Of all the buildings in the town none has so fine a prospect as that in the garden belonging to this house, which lies on the high shore, and looks a good way down the river. The Jesuits, on the other hand, have the worst, and hardly any prospect at all from their college, nor have the Recolets any fine views from their house. In this building all the clergy of Quebec lodge with their superior. They have large pieces of land in several parts of Canada, presented to them by the government, from which they derive a very plentiful income.

* A kind of Franciscan friars, called Ordo Sti. Francisci strictioris observantiæ.

† Le Séminaire.

VIII. The convent of the Ursuline nuns shall be mentioned in the sequel.

These are all the chief public buildings in the town, but to the north-west, just before the town, is

IX. The house of the intendant, a public building, whose size makes it fit for a palace. It is covered with tin, and stands in a second lower town, situated southward upon the river St. Charles. It has a large and fine garden on its north side. In this house all the deliberations concerning this province are held; and the gentlemen who have the management of the police and the civil power meet here, and the intendant generally presides. In affairs of great consequence the governor-general is likewise here. On one side of this house is the store-house of the crown, and on the other the prison.

Most of the houses in Quebec are built of stone, and in the upper city they are generally but one story high, the public buildings excepted. I saw a few wooden houses in the town, but they must not be rebuilt when decayed. The houses and churches in the city are not built of bricks, but the black lime-slates of which the mountain consists, whereon Quebec stands. When these lime-slates are broke at a good depth in the mountain, they look very compact at first, and appear to have no shivers, or lamellæ, at all; but after being exposed awhile to the air, they separate into thin leaves. These slates are soft, and easily cut; and the city-walls, together with the garden-walls, consist chiefly of them. The roofs of the public buildings are covered with common slates, which are brought from France, because there are none in Canada.

The slated roofs have for some years withstood the changes of air and weather, without suffering any damage. The private houses have roofs of boards, which are laid parallel to the spars, and sometimes to the eaves, or sometimes obliquely. The corners of houses are made of a grey small-grained lime-stone, which has a strong smell, like the stink-stone*, and the windows are generally enclased with it. This lime-stone is more useful in those places than the lime-slates, which always shiver in the air. The outsides of the houses are generally white-washed. The windows are placed on the inner side of the walls; for they have sometimes double windows in winter. The middle roof has two, or at most three spars, covered with boards only. The rooms are warmed in winter by small iron stoves, which are removed in summer. The floors are very dirty in every house, and have all the appearance of being cleaned but once every year.

The powder magazine stands on the summit of the mountain, on which the city is built, and southward of the palace.

The streets in the upper city have a sufficient breadth, but are very rugged, on account of the rock on which it lies; and this renders them very disagreeable and troublesome, both to foot-passengers and carriages. The black lime-slates basset out and project every where into sharp angles, which cut the shoes in pieces. The streets cross other at all angles, and are very crooked.

The many great orchards and kitchen-gardens near the house of the Jesuits, and other public and private buildings, make the town appear very large, though the number of houses it contains is not very considerable. Its extent from south to north is said to be about six hundred toises, and from the shore of the river along the lower town, to the western wall, between three hundred and fifty and four hundred toises. It must be here observed, that this space is not yet wholly inhabited; for on the west and south side, along the town walls, are large pieces of land without any buildings on

* Nitrum suillum. Lynn. Syst. III. p. 86. Lapis suillus prismaticus, Waller. Mineral. p. 59. a. 1. Stink-stone, Forster's Introd. to Mineralogy, p. 40.

them,

them, and destined to be built upon in future times, when the number of inhabitants will be increased in Quebec.

The bishop, whose see is in the city, is the only bishop in Canada. His diocese extends to Louisiana, on the Mexican gulf southward, and to the South Seas westward.

No bishop, the Pope excepted, ever had a more extensive diocese. But his spiritual flock is very inconsiderable at some distance from Quebec, and his sheep are often many hundred miles distant from each other.

Quebec is the only sea-port and trading town in all Canada, and from thence all the produce of the country is exported. The port is below the town in the river, which is there about a quarter of a French mile broad, twenty-five fathoms deep, and its ground is very good for anchoring. The ships are secured from all storms in this port; however the north-east wind is the worst, because it can act more powerfully. When I arrived here, I reckoned thirteen great and small vessels, and they expected more to come in. But it is to be remarked, that no other ships than French ones can come into the port, though they may come from any place in France, and likewise from the French possessions in the West Indies. All the foreign goods, which are found in Montreal, and other parts of Canada, must be taken from hence. The French merchants from Montreal, on their side, after making a six months stay among several Indian nations, in order to purchase skins of beasts and furs, return about the end of August, and go down to Quebec in September or October, in order to sell their goods there. The privilege of selling the imported goods, it is said, has vastly enriched the merchants of Quebec; but this is contradicted by others, who allow that there a few in affluent circumstances, but that the generality possess no more than is absolutely necessary for their bare subsistence, and that several are very much in debt, which they say is owing to their luxury and vanity. The merchants dress very finely, and are extravagant in their repasts; and their ladies are every day in full dress, and as much adorned as if they were to go to court.

The town is surrounded on almost all sides by a high wall, and especially towards the land. It was not quite completed when I was there, and they were very busy in finishing it. It is built of the above-mentioned black lime-stone, and of a dark grey sand-stone. For the corners of the gates they have employed a grey lime-stone. They have not made any walls towards the water-side, but nature seems to have worked for them, by placing a rock there which it is impossible to ascend. All the rising land thereabouts is likewise so well planted with cannon, that it seems impossible for an enemy's ships or boats to come to the town without running into imminent danger of being sunk. On the land side the town is likewise guarded by high mountains; so that nature and art have combined to fortify it.

Quebec was founded by its former governor, Samuel de Champlain, in the year 1608. We are informed by history, that its rise was very slow. In 1629, towards the end of July, it was taken by two Englishmen, Lewis and Thomas Kerk, by capitulation, and surrendered to them by the above-mentioned de Champlain. At that time, Canada and Quebec were wholly destitute of provisions; so that they looked upon the English more as their deliverers than their enemies. The above-mentioned Kerks were the brothers of the English admiral David Kerk, who lay with his fleet somewhat lower in the river. In the year 1632, the French got the town of Quebec and all Canada returned to them by the peace. It is remarkable, that the French were doubtful whether they should reclaim Canada from the English, or leave it to them. The greater part were of opinion, that to keep it would be of no advantage to France, because the country was cold, and the expences far exceeded its produce; and because France could not people so extensive a country, without weakening herself, as Spain had

had done before; that it was better to keep the people in France, and employ them in all sorts of manufactures, which would oblige the other European powers who have colonies in America to bring their raw goods to French ports, and take French manufactures in return. Those on the other hand, who had more extensive views, knew that the climate was not so rough as it had been represented. They likewise believed that that which caused the expences was a fault of the company, because they did not manage the country well. They would not have many people sent over at once, but little by little, so that France might not feel it. They hoped that this colony would in future times make France powerful, for its inhabitants would become more and more acquainted with the herring, whale, and cod fisheries, and likewise with the taking of seals; and that by this means Canada would become a school for training up seamen. They further mentioned the several sorts of furs, the conversion of the Indians, the ship-building, and the various uses of the extensive woods. And lastly, that it would be a considerable advantage to France, even though they should reap no other benefit, to hinder by this means the progress of the English in America, and of their encreasing power, which would otherwise become insupportable to France; not to mention several other reasons. Time has shewn that these reasons were the result of mature judgment, and that they laid the foundation of the rise of France. It were to be wished that we had been of the same opinion in Sweden, at a time when we were actually in possession of New Sweden, the finest and best province in all North America, or when we were yet in a condition to get the possession of it. Wisdom and foresight does not only look upon the present times, but even extends its views to futurity.

In the year 1663, at the beginning of February, the great earthquake was felt in Quebec and a great part of Canada, and there are still some vestiges of its effects at that time; however, no lives were lost.

On the 16th of October 1690, Quebec was besieged by the English general, William Phips, who was obliged to retire a few days after, with great loss. The English have tried several times to repair their losses, but the river St. Lawrence has always been a very good defence for this country. An enemy, and one that is not acquainted with this river, cannot go upwards in it, without being ruined; for in the neighbourhood of Quebec, it abounds with hidden rocks, and has strong currents in some places, which oblige the ships to make many windings.

The name of Quebec, it is said, is derived from a Norman word, on account of its situation on a neck or point of land. For when one comes up in the river by l'Isle d'Orleans, that part of the river St. Lawrence does not come in sight, which lies above the town, and it appears as if the river St. Charles, which lies just before, was a continuation of the St. Lawrence. But on advancing further the true course of the river comes within sight, and has at first a great similarity to the mouth of a river or a great bay. This has given occasion to a sailor, who saw it unexpectedly, to cry out in his provincial dialect, *Que bec **, that is, what a point of land! and from hence it is thought the city obtained its name. Others derive it from the Algonkin word *Quebego* or *Quebec*, signifying that which grows narrow, because the river becomes narrower as it comes nearer to the town.

The river St. Lawrence is exactly a quarter of a French mile, or three quarters of an English mile broad at Quebec. The salt water never comes up to the town in it, and therefore the inhabitants can make use of the water in the river for their kitchens, &c. All accounts agree, that notwithstanding the breadth of this river, and

* Meaning *Quel bec*.

the violence of its course, especially during ebb, it is covered with ice during the whole winter, which is strong enough for walking, and a carriage may go over it. It is said to happen frequently that, when the river has been open in May, there are such cold nights in this month, that it freezes again, and will bear walking over. This is a clear proof of the intenseness of the frost here, especially when one considers that which I shall mention immediately after, about the ebbing and flowing of the tide in this river. The greatest breadth of the river, at its mouth, is computed to be twenty-six French miles, or seventy-eight English miles, though the boundary between the sea and the river cannot well be ascertained, as the latter gradually loses itself in, and unites with the former. The greatest part of the water contained in the numerous lakes of Canada, four or five of which are like large seas, is forced to disembogue into the sea by means of this river alone. The navigation up this river from the sea is rendered very dangerous by the strength of the current, and by the number of sand-banks, which often arise in places where they never were before. The English have experienced this formation of new sands once or twice, when they attempted to conquer Canada. Hence the French have good reasons to look upon the river as a barrier to Canada*.

The tide goes far beyond Quebec in the river St. Lawrence, as I have mentioned above. The difference between high and low water is generally, between fifteen and sixteen feet, French measure; but with the new and full moon, and when the wind is likewise favourable, the difference is seventeen or eighteen feet, which is indeed very considerable.

August 7th. Ginseng is the current French name in Canada, of a plant, the root of which has a very great value in China†. It has been growing since times immemorial in the Chinese Tartary and in Corea, where it is annually collected and brought to China. Father Du Halde says, it is the most precious, and the most useful of all the plants in Eastern Tartary; and attracts, every year, a number of people into the deserts of that country. The Mantchoux-Tartars call it orhota, that is the most noble, or the queen of plants. The Tartars and Chinese praise it very much, and ascribe to it the power of curing several dangerous diseases, and that of restoring to the body new strength, and supplying the loss caused by the exertion of the mental, and corporeal faculties. An ounce of ginseng bears the surprizing price of seven or eight ounces of silver at Peking. When the French botanists in Canada first saw a figure of it, they remembered to have seen a similar plant in this country. They were confirmed in their conjecture by considering that several settlements in Canada lie under the same latitude with those parts of the Chinese Tartary, and China, where the true ginseng grows wild. They succeeded in their attempt, and found the same ginseng wild and abundant in several parts of North America, both in French and English plantations, in plain parts of the woods. It is fond of shade, and of a deep rich mould, and of land which is neither wet nor high. It is not every where very common, for sometimes one may search the woods for the space of several miles without finding a single plant of it; but

* The river St. Lawrence was no more a barrier to the victorious British fleets in the last war, nor were the fortifications of Quebec capable to withstand the gallant attacks of their land army, which disappointed the good Frenchmen in Canada of their too sanguine expectations; and, at present, they are rather happy at this change of fortune, which has made them subjects of the British sceptre, whose mild influence they at present enjoy. F.

† Botanists know this plant by the name of *panax quinquefolium*, foliis ternatis quinatis. Linn. Mat. Med. § 116. Sp. plant. p. 15. 12. Gronov. Fl. Virg. p. 147. See likewise Catesby's Nat. Hist. of Carolina, vol. iii. p. 16 t. 16. Laffitau Gins. 51. t. 1. Father Charlevoix Hist. de la Nouvelle France, tom. iv. p. 308. fig. xiii. and tom. v. p. 24.

in those spots where it grows it is always found in great abundance. It flowers in May and June, and its berries are ripe at the end of August. It bears transplanting very well, and will soon thrive in its new ground. Some people here, who have gathered the berries, and put them into their kitchen-gardens, told me that they lay one or two years in the ground without coming up. The Iroquese, or Five (Six) Nations, call the ginseng roots *garangtosing*, which it is said signifies a child, the roots bearing a faint resemblance to it; but others are of opinion that they mean the thigh and leg by it, and the roots look pretty like it. The French use this root for curing the asthma, as a stomachic, and to promote fertility in women. The trade which is carried on with it here is very brisk; for they gather great quantities of it, and send them to France, from whence they are brought to China, and sold there to great advantage*. It is said the merchants in France met with amazing success in this trade at the first outset, but by continuing to send the ginseng over to China, its price is fallen considerably there, and consequently in France and Canada; however, they still find their account in it. In the summer of 1748, a pound of ginseng was sold for six francs, or livres, at Quebec; but its common price here is one hundred sols, or five livres. During my stay in Canada, all the merchants at Quebec and Montreal received orders from their correspondents in France to send over a quantity of ginseng, there being an uncommon demand for it this summer. The roots were accordingly collected in Canada with all possible diligence; the Indians especially travelled about the country in order to collect as much as they could together, and to sell it to the merchants at Montreal. The Indians in the neighbourhood of this town were likewise so much taken up with this business, that the French farmers were not able during that time to hire a single Indian, as they commonly do, to help them in the harvest. Many people feared lest by continuing for several successive years to collect these plants, without leaving one or two in each place to propagate their species, there will soon be very few of them left; which I think is very likely to happen, for by all accounts they formerly grew in abundance round Montreal, but at present there is not a single plant of it to be found, so effectually have they been rooted out. This obliged the Indians this summer to go far within the English boundaries to collect these roots. After the Indians have sold the fresh roots to the merchants, the latter must take a great deal of pains with them. They are spread on the floor to dry, which commonly requires two months and upwards, according as the season is wet or dry. During that time they must be turned once or twice every day, lest they should putrify or moulder. Ginseng has never been found far north of Montreal. The superior of the clergy here, and several other people, assured me that the Chinese value the Canada ginseng as much as the Tartarian†; and that no one ever had been entirely acquainted with the Chinese method of preparing it. However it is thought amongst other preparations they dip the roots in a decoction of the leaves of ginseng. The roots prepared by the Chinese are almost transparent, and look like horn in the inside; and the roots which are fit for use, must be heavy and compact in the inside.

The plant which throughout Canada bears the name of *herba capillaris* is likewise one of those with which a great trade is carried on in Canada. The English in their plantations call it maiden-hair; it grows in all their North American colonies, which

* Mr. Osbeck seems to doubt whether the Europeans reap any advantages from the ginseng trade or not, because the Chinese do not value the Canada roots so much as those of the Chinese Tartary; and therefore the former bear scarce half the price of the latter. See Osbeck's Voyage to China, vol. i. p. 223. F.

† This is directly opposite to Mr. Osbeck's assertion. See the preceding note. F.

I travelled through, and likewise in the southern parts of Canada; but I never found it near Quebec. It grows in the woods in shady places and in a good soil *. Several people in Albany and Canada assured me that its leaves were very much used instead of tea, in consumptions, coughs, and all kinds of pectoral diseases. This they have learnt from the Indians, who have made use of this plant for these purposes since time immemorial. This American maiden-hair is reckoned preferable in surgery to that which we have in Europe †; and therefore they send a great quantity of it to France every year. The price is different, and regulated according to the goodness of the plant, the care in preparing it, and the quantity which is to be got. For if it be brought to Quebec in great abundance, the price falls; and on the contrary, it rises, when the quantity gathered is but small. Commonly the price at Quebec is between five and fifteen sols a pound. The Indians went into the woods about this time, and travelled far above Montreal in quest of this plant.

The kitchen herbs succeed very well here. The white cabbage is very fine, but sometimes suffers greatly from worms. Onions (*allium cepa*) are very much in use here, together with other species of leeks. They likewise plant several species of gourds, melons, fallads, wild succory or wild endive (*cichorium intybus*), several kinds of pease, beans, French beans, carrots, and cucumbers. They have plenty of red beets, horse-radishes and common radishes, thyme, and marjoram. Turnips are sown in abundance, and used chiefly in winter. Parsnips are sometimes eaten, though not very common. Few people took notice of potatoes; and neither the common (*solanum tuberosum*) nor the Bermuda ones (*convolvulus batatas*) were planted in Canada. When the French here are asked why they do not plant potatoes, they answer, that they cannot find any relish in them, and they laugh at the English who are so fond of them. Throughout all North America the root cabbage ‡ (*brassica gongylodes* Linn.) is unknown to the Swedes, English, Dutch, Irish, Germans, and French. Those who have been employed in sowing and planting kitchen herbs in Canada, and have had some experience in gardening, told me that they were obliged to send for fresh seeds from France every year, because they commonly lose their strength here in the third generation, and do not produce such plants as would equal the original ones in taste and goodness.

The Europeans have never been able to find any characters, much less writings, or books, among the Indians, who have inhabited North America since time immemorial, and seem to be all of one nation, and speak the same language. These Indians have therefore lived in the greatest ignorance and darkness, during some centuries, and are totally unacquainted with the state of their country before the arrival of the Europeans, and all their knowledge of it consists in vague traditions and mere fables. It is not certain whether any other nations possessed America before the present Indian inhabitants came into it, or whether any other nations visited this part of the globe before Columbus discovered it. It was equally unknown whether the Christian religion was ever preached here in former times. I conversed with several Jesuits, who undertook long journies in this extensive country, and asked them, whether they had met with any marks that there had formerly been some Christians among the Indians which lived here?

* It is the *adiantum pedatum* of Linn. sp. pl. p. 1557. Cornutus, in his *Canadens. plant. Historia*, p. 7. calls it *adiantum Americanum*, and gives together with the description, a figure of it, p. 6.

† *Adiantum capillus veneris*. True maiden-hair.

‡ This is a kind of cabbage with large round eatable roots; which grow out above the ground, wherein it differs from the turnip-cabbage (*brassica napobrassica*) whose root grows in the ground. Both are common in Germany, and the former likewise in Italy.

but they all answered, that they had not found any. The Indians have ever been as ignorant of architecture and manual labour as of science and writing. In vain does one seek for well-built towns and houses, artificial fortifications, high towers and pillars, and such like, among them, which the old world can shew from the most antient times. Their dwelling-places are wretched huts of bark, exposed on all sides to wind and rain. All their masonry-work consists in placing a few grey rock-stones on the ground, round their fire-place, to prevent the firebrands from spreading too far in their hut, or rather, to mark out the space intended for the fire-place in it. Travellers do not enjoy a tenth part of the pleasure in traversing these countries which they must receive on their journies through our old countries, where they, almost every day, meet with some vestige or other of antiquity: now an antient celebrated town presents itself to view; here the remains of an old castle; there a field, where, many centuries ago, the most powerful and the most skilful generals, and the greatest kings, fought a bloody battle, now the native spot and residence of some great or learned man. In such places the mind is delighted in various ways, and represents all past occurrences in living colours to itself. We can enjoy none of these pleasures in America. The history of the country can be traced no further than from the arrival of the Europeans, for every thing that happened before that period is more like a fiction, or a dream, than any thing that really happened. In later times there have, however, been found a few marks of antiquity, from which it may be conjectured, that North America was formerly inhabited by a nation more versed in science, and more civilized than that which the Europeans found on their arrival here; or that a great military expedition was undertaken to this continent, from these known parts of the world.

This is confirmed by an account which I received from Mr. de Verandrier, who has commanded the expedition to the south-sea in person, of which I shall presently give an account. I have heard it repeated by others, who have been eye-witnesses of every thing that happened on that occasion. Some years before I came into Canada, the then governor-general, Chevalier de Beauharnois, gave Mr. de Verandrier an order to go from Canada, with a number of people, on an expedition across North America to the south sea, in order to examine how far those two places are distant from each other, and to find out what advantages might accrue to Canada or Louisiana from a communication with that ocean. They set out on horseback from Montreal, and went as much due west as they could, on account of the lakes, rivers, and mountains, which fell in their way. As they came far into the country, beyond many nations, they sometimes met with large tracts of land free from wood, but covered with a kind of very tall grass, for the space of some days journey. Many of these fields were every where covered with furrows, as if they had been ploughed and sown formerly. It is to be observed, that the nations, which now inhabit North America, could not cultivate the land in this manner, because they never made use of horses, oxen, ploughs, or any instruments of husbandry, nor had they ever seen a plough before the Europeans came to them. In two or three places, at a considerable distance from each other, our travellers met with impressions of the feet of grown people and children in a rock; but this seems to have been no more than a *lusus naturæ*. When they came far to the west, where, to the best of their knowledge, no Frenchmen or European had ever been, they found in one place in the woods, and again on a large plain, great pillars of stone, leaning upon each other. The pillars consisted of one single stone each, and the Frenchmen could not but suppose that they had been erected by human hands. Sometimes they have found such stones laid upon one another, and, as it were, formed into a wall. In some of those places where they found such stones, they could not find

find any other sorts of stone. They have not been able to discover any characters or writing upon any of these stones, though they have made a very careful search after them. At last they met with a large stone, like a pillar, and in it a smaller stone was fixed, which was covered on both sides with unknown characters. This stone, which was about a foot of French measure in length, and between four or five inches broad, they broke loose, and carried to Canada with them, from whence it was sent to France, to the secretary of state, the Count of Maurepas. What became of it afterwards is unknown; to them but they think it is yet preserved in his collection. Several of the Jesuits, who have seen and handled this stone in Canada, unanimously affirm, that the letters on it are the same with those which in the books, containing accounts of Tataria, are called Tatarian characters*; and that, on comparing both together, they found them perfectly alike. Notwithstanding the questions which the French on the south-sea expedition asked the people there concerning the time when, and by whom those pillars were erected? what their traditions and sentiments concerning them were? who had wrote the characters? what was meant by them? what kind of letters they were? in what language they were written? and other circumstances; yet they could never get the least explication, the Indians being as ignorant of all those things as the French themselves. All they could say was, that these stones had been in those places time immemorial. The places where the pillars stood were near nine hundred French miles westward of Montreal. The chief intention of this journey, viz. to come to the south-sea, and to examine its distance from Canada, was never attained on this occasion. For the people sent out for that purpose were induced to take part in a war between some of the most distant Indian nations, in which some of the French were taken prisoners, and the rest obliged to return. Among the last and most westerly Indians they were with, they heard that the south-sea was but a few days journey off; that they (the Indians) often traded with the Spaniards on that coast, and sometimes likewise

* This account seems to be highly probable, for we find in Marco Paolo that Kublai-Khan, one of the successors of Genghizkhan, after the conquest of the southern part of China, sent ships out to conquer the kingdom of Japan, or, as they call it, Nipan-gri; but in a terrible storm the whole fleet was cast away, and nothing was ever heard of the men in that fleet. It seems that some of these ships were cast to the shores, opposite the great American lakes, between forty and fifty degrees north latitude, and there probably erected these monuments, and were the ancestors of some nations who are called Mozomlecks, and have some degree of civilization. Another part of this fleet, it seems, reached the country opposite Mexico, and there founded the Mexican empire, which, according to their own records as preserved by the Spaniards, and in their painted annals in Purchas's Pilgrimage, are very recent; so that they can scarcely remember any more than seven princes before Motezuma II. who was reigning when the Spaniards arrived there 1519, under Fernando Cortez; consequently the first of these princes, supposing each had a reign of thirty-three years and four months, and adding to it the sixteen years of Montezuma, began to reign in the year 1270, when Kublai-Khan, the conqueror of all China and of Japan, was on the throne, and in whose time happened, I believe, the first abortive expedition to Japan, which I mentioned above, and probably furnished North America with civilized inhabitants. There is, if I am not mistaken, a great similarity between the figures of the Mexican idols, and those which are usual among the Tartars, who embrace the doctrines and religion of the Dalai-Lama, whose religion Kublai-Khan first introduced among the Monguls, or Moguls. The savage Indians of North America, it seems, have another origin, and are probably descended from the Yukaghiri, and Tchucktchai, inhabitants of the most easterly and northerly part of Asia, where, according to the accounts of the Russians, there is but a small tract to America. The ferocity of these nations, similar to that of the Americans, their way of painting, their fondness of inebriating liquors, (which the Yukaghiri prepare from poisonous and inebriating mushrooms, bought of the Russians) and many other things, show them plainly to be of the same origin. The Eskimaux seems to be the same nation with the inhabitants of Greenland, the Samoyedes, and Lapponians. South America, and especially Peru, is probably peopled from the great unknown south continent, which is very near America, civilized, and full of inhabitants of various colours; who therefore might very easily be cast on the American continent, in boats, or proas. F.

they went to Hudson's Bay, to trade with the English. Some of these Indians had houses, which were made of earth. Many nations had never seen any Frenchmen; they were commonly clad in skins, but many were quite naked.

All those who had made long journies in Canada to the south, but chiefly westward, agreed that there were many great plains destitute of trees, where the land was furrowed, as if it had been ploughed. In what manner this happened no one knows; for the corn-fields of a great village, or town, of the Indians, are scarce above four or six of our acres in extent; whereas those furrowed plains sometimes continue for several days journey, except now and then a small smooth spot, and here and there some rising grounds.

I could not hear of any more vestiges of antiquity in Canada, notwithstanding my careful enquiries after them. In the continuation of my journey for the year 1750*, I shall find an opportunity of speaking of two other remarkable curiosities. Our Swedish Mr. George Westman, A. M. has clearly and circumstantially shewn that our Scandinavians, chiefly the northern ones, long before Columbus's time, have undertaken voyages to North America; see his dissertation on that subject, which he read at Abo in 1747, for obtaining his degree.

August 8th. This morning I visited the largest nunnery in Quebec. Men are prohibited from visiting under very heavy punishments; except in some rooms, divided by iron rails, where the men and women that do not belong to the convent, stand without, and the nuns within the rails, and converse with each other. But to encrease the many favours which the French nation heaped upon me, as a Swede, the governor-general got the bishop's leave for me to enter the convent, and see its construction. The bishop alone has the power of granting this favour, but he does it very sparingly. The royal physician, and a surgeon, are however at liberty to go in as often as they think proper. Mr. Gaulthier, a man of great knowledge in physic and botany, was at present the royal physician here, and accompanied me to the convent. We first saw the hospital, which I shall presently describe, and then entered the convent, which forms a part of the hospital. It is a great building of stone, three stories high, divided in the inside into long galleries, on both sides of which are cells, halls, and rooms. The cells of the nuns are in the highest story, on both sides of the gallery; they are but small; not painted in the inside, but hung with paper pictures of saints, and of our Saviour on the cross. A bed with curtains, and good bed-clothes, a little narrow desk, and a chair or two, is the whole furniture of a cell. They have no fires in winter, and the nuns are forced to lie in the cold cells. On the gallery is a stove, which is heated in winter, and as all the rooms are left open, some warmth can by this means come into them. In the middle story are rooms where they pass the day together. One of these is the room where they are at work; this is large, finely painted and adorned, and has an iron stove. Here they were at their needle-work, embroidering, gilding, and making flowers of silk, which bear a great similitude to the natural ones. In a word, they were all employed in such nice works, as were suitable to ladies of their rank in life. In another hall they assembled to hold their juntas. Another apartment contains those who are indisposed; but such as are more dangerously ill have rooms to themselves. The novices, and new comers, are taught and instructed in another hall. Another is destined for their refectory, or dining-room, in which are tables on all sides; on one side of it is a small desk, on which is laid a French book, concerning the life of those saints who are mentioned in the New Testament. When they dine, all are silent; one

* This part has not yet been published.

of the eldest gets into the desk, and reads a part of the book before-mentioned ; and when they are gone through it, they read some other religious book. During the meal, they sit on that side of the table which is turned towards the wall. Almost in every room is a gilt table, on which are placed candles, together with the picture of our Saviour on the cross, and of some saints : before these tables they say their prayers. On one side is the church, and near it a large gallery, divided from the church by rails, so that the nuns could only look into it. In this gallery they remain during divine service, and the clergyman is in the church, where the nuns reach him his sacerdotal clothes through a hole, for they are not allowed to go into the vestry, and to be in the same room with the priest. There are still several other rooms and halls here, the use of which I do not remember. The lowest story contains a kitchen, bake-house, several butteries, &c. In the garrets they keep their corn, and dry their linen. In the middle story is a balcony on the outside, almost round the whole building, where the nuns are allowed to take air. The prospect from the convent is very fine on every side ; the river, the fields, and the meadows out of town, appear there to great advantage. On one side of the convent is a large garden, in which the nuns are at liberty to walk about ; it belongs to the convent, and is surrounded with a high wall. There is a quantity of all sorts of fruits in it. This convent, they say, contains about fifty nuns, most of them advanced in years, scarce any being under forty years of age. At this time there were two young ladies among them who were instructed in those things which belong to the knowledge of nuns. They are not allowed to become nuns immediately after their entrance, but must pass through a noviciate of two or three years, in order to try whether they will be constant ; for, during that time, it is in their power to leave the convent, if a monastic life does not suit their inclinations. But as soon as they are received among the nuns, and have made their vows, they are obliged to continue their whole life in it : if they appear willing to change their mode of life, they are locked up in a room, from whence they can never get out. The nuns of this convent never go further from it than to the hospital, which lies near it, and even makes a part of it. They go there to attend the sick, and to take care of them. I was told by several people here, some of which were ladies, that none of the nuns went into a convent till she had attained to an age in which she had small hopes of ever getting a husband. The nuns of all the three convents in Quebec looked very old, by which it seems that there is some foundation for this account.

The hospital, as I have before-mentioned, makes a part of the convent. It consists of two large halls and some rooms near the apothecary's shop. In the halls are two rows of beds on each side, within each other. The beds next to the wall are furnished with curtains, the outward ones are without them. In each bed are fine bed-clothes, with clean double sheets. As soon as a sick person has left his bed, it is made again, in order to keep the hospital in cleanliness and order. The beds are two or three yards distant, and near each is a small table. There are good iron stoves, and fine windows, in this hall. The nuns attend the sick people, and bring them meat and other necessities ; besides them there are some men who attend, and a surgeon. The royal physician is likewise obliged to come hither once or twice every day, to look after every thing, and give prescriptions. They commonly receive sick soldiers into this hospital, who are very numerous in July and August, when the king's ships arrive, and in time of war ; but at other times, when no great number of soldiers are sick, other people can take their places, as far as the number of empty beds will reach. The king finds every thing here that is requisite for the sick persons, viz. provisions, medicines, fuel

fuel, &c. Those who are very ill are put into separate rooms, in order that the noise in the great hall may not be troublesome to them.

The civility of the inhabitants here is more refined than that of the Dutch and English in the settlements belonging to Great Britain; but the latter, on the other hand, do not idle their time away in dressing, as the French do here. The ladies, especially, dress and powder their hair every day, and put their locks in papers every night; which idle custom was not introduced in the English settlements. The gentlemen wear generally their own hair; but some have wigs. People of rank are used to wear laced cloaths, and all the crown-officers wear swords. All the gentlemen, even those of rank, the governor-general excepted, when they go into town on a day that looks like rain, carry their cloaks on their left arm. Acquaintances of either sex, who have not seen each other for some time, on meeting again salute with mutual kisses.

Concerning the Canada plants, I can here add, that the further you go northward the more you find the plants are the same with the Swedish ones: thus, on the north side of Quebec, a fourth part of the plants, if not more, are the same with the spontaneous plants in Sweden. A few plants and trees, which have a particular quality, or are applied to some particular use, shall however, be mentioned in a few words, in the sequel.

The rein-deer moss (*lichen rangiferinus*) grows plentiful in the woods round Quebec. Mr. Gaulthier, and several other gentlemen, told me, that the French, on their long journies through the woods, on account of their fur trade with the Indians, sometimes boil this moss, and drink the decoction for want of better food, when their provisions are at an end; and they say it is very nutritive. Several Frenchmen, who have been in the Terra Labrador, where there are many rein-deer (which the French and Indians here call *cariboux*) related, that all the land there is in most places covered with this rein-deer moss, so that the ground looks as white as snow.

August 10th. This day I dined with the Jesuits. A few days before I paid my visit to them; and the next day their president, and another, father Jesuit called on me, to invite me to dine with them to-day. I attended divine service in their church, which is a part of their house. It is very fine within, though it has no seats; for every one is obliged to kneel down during the service. Above the church is a small steeple, with a clock. The building the Jesuits live in is magnificently built, and looks exceeding fine both without and within, which gives it a similarity to a fine palace. It consists of stone, is three stories high, exclusive of the garret, covered with slates, and built in a square form, like the new palace at Stockholm, including a large court. Its size is such that three hundred families would find room enough in it; though at present there were not above twenty Jesuits in it. Sometimes there is a much greater number of them, especially when those return who have been sent as missionaries into the country. There is a long walk along the sides of the square, in every story, on both sides of which are either cells, halls, or other apartments for the friars; and likewise their library, apothecary shop, &c. Every thing is very well regulated, and the Jesuits are very well accommodated here. On the outside is their college, which is on two sides surrounded with great orchards and kitchen-gardens, in which they have fine walks. A part of the trees here are the remains of the forest which stood here when the French began to build this town. They have besides planted a number of fruit-trees; and the garden is stocked with all sorts of plants for the use of the kitchen. The Jesuits dine together in a great hall. There are tables placed all round it along the walls, and seats between the tables and the walls, but not on the other side. Near

one wall is a pulpit, upon which one of the fathers gets during the meal, in order to read some religious book ; but this day it was omitted, all the time being employed in conversation. They dine very well, and their dishes are as numerous as at the greatest feasts. In this spacious building you do not see a single woman ; all are fathers or brothers ; the latter of which are young men brought up to be Jesuits. They prepare the meal, and bring it upon table ; for the common servants are not admitted.

Besides the bishop, there are three kinds of clergymen in Canada ; viz. Jesuits, priests, and recolets. The Jesuits are, without doubt, the most considerable ; therefore they commonly say here, by way of proverb, that a hatchet is sufficient to sketch out a recolet ; a priest cannot be made without a chissel ; but a Jesuit absolutely requires the pencil * ; to shew how much one surpasses the others. The Jesuits are commonly very learned, studious, and are very civil and agreeable in company. In their whole deportment there is something pleasing ; it is no wonder therefore that they captivate the minds of the people. They seldom speak of religious matters ; and if it happens, they generally avoid disputes. They are very ready to do any one a service ; and when they see that their assistance is wanted, they hardly give one time to speak of it, falling to work immediately, to bring about what is required of them. Their conversation is very entertaining and learned, so that one cannot be tired of their company. Among all the Jesuits I have conversed with in Canada, I have not found one who was not possessed of these qualities in a very eminent degree. They have large possessions in this country, which the French king gave them. At Montreal they have likewise a fine church, and a little neat house, with a small but pretty garden within. They do not care to become preachers to a congregation in the town or country ; but leave these places, together with the emoluments arising from them, to the priests. All their business here is to convert the heathens ; and with that view their missionaries are scattered over every part of this country. Near every town and village, peopled by converted Indians, are one or two Jesuits, who take great care that they may not return to Paganism, but live as Christians ought to do. Thus there are Jesuits with the converted Indians in Tadoussac, Lorette, Becancourt, St. Francois, Saut St. Louis, and all over Canada. There are likewise Jesuit missionaries with those who are not converted ; so that there is commonly a Jesuit in every village belonging to the Indians, whom he endeavours on all occasions to convert. In winter he goes on their great hunts, where he is frequently obliged to suffer all imaginable inconveniences, such as walking in the snow all day, lying in the open air all winter, being out both in good and bad weather, the Indians not regarding any kind of weather : lying in the Indian huts, which often swarm with fleas and other vermin, &c. The Jesuits undergo all these hardships for the sake of converting the Indians, and likewise for political reasons. The Jesuits are of great use to their king ; for they are frequently able to persuade the Indians to break their treaty with the English, to make war upon them, to bring their furs to the French, and not to permit the English to come amongst them. But there is some danger attending these attempts ; for when the Indians are in liquor, they sometimes kill the missionaries who live with them ; calling them spies, or excusing themselves by saying that the brandy had killed them. These are accordingly the chief occupations of the Jesuits here. They do not go to visit the sick in the town, they do not hear the confessions, and attend at no funerals. I have never seen them go in

* Pour faire un recolet il faut une hachette, pour un prêtre un ciseau, mais pour un Jesuite il faut un pinceau.

processions in remembrance of the Virgin Mary and other saints. They seldom go into a house in order to get meat; and though they be invited, they do not like to stay, except they be on a journey. Every body sees that they are, as it were, selected from the other people, on account of their superior genius and qualities. They are here reckoned a most cunning set of people, who generally succeed in their undertakings, and surpass all others in acuteness of understanding. I have therefore several times observed that they have enemies in Canada. They never receive any others into their society, but persons of very promising parts; so that there are no blockheads among them. On the other hand, the priests receive the best kind of people among their order they can meet with; and in the choice of monks, they are yet less careful. The Jesuits who live here, are all come from France; and many of them return thither again, after a stay of a few years here. Some (five or six of which are yet alive) who were born in Canada, went over to France, and were received among the Jesuits there; but none of them ever came back to Canada. I know not what political reason hindered them. During my stay in Quebec, one of the priests, with the bishop's leave, gave up his priesthood and became a Jesuit. The other priests were very ill pleased with this, because it seemed as if he looked upon their condition as too mean for himself. Those congregations in the country that pay rents to the Jesuits, have, however, divine service performed by priests, who are appointed by the bishop; and the land-rent only belongs to the Jesuits. Neither the priests nor the Jesuits carry on any trade with furs and skins, leaving that entirely to the merchants.

This afternoon I visited the building called the seminary, where all the priests live in common. They have a great house, built of stone, with walks in it, and rooms on each side. It is several stories high, and close to it is a fine garden, full of all sorts of fruit-trees and pot-herbs, and divided by walks. The prospect from hence is the finest in Quebec. The priests of the seminary are not much inferior to the Jesuits in civility; and therefore I spent my time very agreeably in their company.

The priests are the second and most numerous class of the clergy in this country; for most of the churches, both in towns and villages (the Indian converts excepted) are served by priests. A few of them are likewise missionaries. In Canada are two seminaries; one in Quebec, the other in Montreal. The priests of the seminary of Montreal are of the order of St. Sulpitius, and supply only the congregation on the isle of Montreal, and the town of the same name. At all the other churches in Canada, the priests belonging to the Quebec seminary officiate. The former, or those of the order of St. Sulpitius, all come from France; and I was assured that they never suffer a native of Canada to come among them. In the seminary at Quebec, the natives of Canada make the greater part. In order to fit the children of this country for orders, there are schools at Quebec and St. Joachim; where the youths are taught Latin, and instructed in the knowledge of those things and sciences which have a more immediate connexion with the business they are intended for. However, they are not very nice in their choice; and people of a middling capacity are often received among them. They do not seem to have made great progress in Latin; for notwithstanding the service is read in that language, and they read their Latin breviary, and other books, every day, yet most of them found it very difficult to speak it. All the priests in the Quebec seminary are consecrated by the bishop. Both the seminaries have got great revenues from the king; that in Quebec has above thirty thousand livres. All the country on the west side of the river St. Lawrence, from the town of Quebec to bay St. Paul, belongs to this seminary, besides their other possessions in the country. They lease the land to the settlers for a certain rent, which, if it be annually paid

according to their agreement, the children or heirs of the settlers may remain in an undisturbed possession of the lands. A piece of land, three arpents * broad, and thirty, forty, or fifty arpents long, pays annually an ecu †, and a couple of chickens, or some other additional trifle. In such places as have convenient water-falls, they have built water-mills, or saw-mills, from which they annually get considerable sums. The seminary of Montreal possesses the whole ground on which that town stands, together with the whole isle of Montreal. I have been assured that the ground-rent of the town and isle is computed at seventy thousand livres; besides what they get for saying masses, baptizing, holding confessions, attending at marriages and funerals, &c. All the revenues of ground-rent belong to the seminaries alone, and the priests in the country have no share in them. But as the seminary in Montreal, consisting only of sixteen priests, has greater revenues than it can expend, a large sum of money is annually sent over to France, to the chief seminary there. The land-rents belonging to the Quebec seminary are employed for the use of the priests in it, and for the maintenance of a number of young people, who are brought up to take orders. The priests who live in the country parishes, get the tythe from their congregation, together with the perquisites on visiting the sick, &c. In small congregations, the King gives the priests an additional sum. When a priest in the country grows old, and has done good services, he is sometimes allowed to come into the seminary in town. The seminaries are allowed to place the priests on their own estates; but the other places are in the gift of the bishop.

The recolets are a third class of clergymen in Canada. They have a fine large dwelling-house here, and a fine church, where they officiate. Near it is a large and fine garden, which they cultivate with great application. In Montreal and Trois Rivières, they are lodged almost in the same manner as here. They do not endeavour to choose cunning fellows amongst them, but take all they can get. They do not torment their brains with much learning; and I have been assured, that after they have put on their monastic habit, they do not study to increase their knowledge, but forget even what little they knew before. At night they generally lie on mats, or some other hard matresses; however, I have sometimes seen good beds in the cells of some of them. They have no possessions here, having made vows of poverty, and live chiefly on the alms which people give them. To this purpose, the young monks, or brothers, go into the houses with a bag, and beg what they want. They have no congregations in the country, but sometimes they go among the Indians as missionaries. In each fort, which contains forty men, the King keeps one of these monks instead of a priest, who officiates there. The King gives him lodging, provisions, servants, and all he wants, besides two hundred livres a year. Half of it he sends to the community he belongs to; the other half he reserves for his own use. On board the King's ships are generally no other priests than these friars, who are therefore looked upon as people belonging to the King. When one of the chief priests ‡ in the country dies, and his place cannot immediately be filled up, they send one of these friars there, to officiate whilst the place is vacant. Part of these monks come over from France, and part are natives of Canada. There are no other monks in Canada besides these, except now and then one of the order of St. Austin, or some other, who comes with one of the King's ships, but goes off with it again.

* A French acre.

† A French coin, value about a crown English.

‡ Pasteur.

August 11th. This morning I took a walk out of town, with the royal physician Mr. Gauthier, in order to collect plants, and to see a nunnery at some distance from Quebec. This monastery, which is built very magnificently of stone, lies in a pleasant spot, surrounded with corn-fields, meadows, and woods, from whence Quebec and the river St. Lawrence may be seen; a hospital for poor old people, cripples, &c. makes part of the monastery, and is divided into two halls, one for men, the other for women. The nuns attend both sexes, with this difference, however, that they only prepare the meal for the men, and bring it in to them, give them physic, and take the cloth away when they have eaten, leaving the rest for male servants. But in the hall where the women are, they do all the work that is to be done. The regulation in the hospital was the same as in that at Quebec. To shew me a particular favour, the bishop, at the desire of the Marquis la Galissonniere, governor-general of Canada, granted me leave to see this nunnery likewise, where no man is allowed to enter without his leave, which is an honour he seldom confers on any body. The abbess led us through all the apartments, accompanied by a great number of nuns. Most of the nuns here are of noble families, and one was the daughter of a governor. Many of them are old, but there are likewise some very young ones among them, who looked very well. They seemed all to be more polite than those in the other nunnery. Their rooms are the same as in the last place, except some additional furniture in their cells; the beds are hung with blue curtains; there are a couple of small bureaux, a table between them, and some pictures on the walls. There are however no stoves in any cell; but those halls and rooms, in which they are assembled together, and in which the sick ones lie, are supplied with an iron stove. The number of nuns is indeterminate here, and I saw a great number of them. Here are likewise some probationers preparing for their reception among the nuns. A number of little girls are sent hither by their parents, to be instructed by the nuns in the principles of the christian religion, and in all sorts of ladies work. The convent at a distance looks like a palace; and, as I am told, was founded by a bishop, who they say is buried in a part of the church.

We botanized till dinner time in the neighbouring meadows, and then returned to the convent to dine with a venerable old father recollet, who officiated here as a priest. The dishes were all prepared by nuns, and as numerous and various as on the tables of great men. There were likewise several sorts of wine, and many preserves. The revenues of this monastery are said to be considerable. At the top of the building is a small steeple with a bell. Considering the large tracts of land which the King has given in Canada to convents, Jesuits, priests, and several families of rank, it seems he has very little left for himself.

Our common raspberries are so plentiful here on the hills, near corn-fields, rivers, and brooks, that the branches look quite red on account of the number of berries on them. They are ripe about this time, and eaten as a desert after dinner, both fresh and preserved.

The mountain-ash, or sorb-tree* is pretty common in the woods hereabouts.

They reckon the north-east wind the most piercing of all here. Many of the best people here assured me, that this wind, when it is very violent in winter, pierces through walls of a moderate thickness, so that the whole wall on the inside of the house is covered with snow, or a thick hoar frost; and that a candle placed near a thinner wall is almost blown out by the wind which continually comes through. This wind damages

* *Sorbus aucuparia*.

the houses which are built of stone, and forces the owners to repair them very frequently on the north-east side. The north and north-east winds are likewise reckoned very cold here. In summer the north wind is generally attended with rain.

The difference of climate between Quebec and Montreal is on all hands allowed to be very great. The wind and weather of Montreal are often entirely different from what they are at Quebec. The winter there is not near so cold as in the last place. Several sorts of fine pears will grow near Montreal, but are far from succeeding at Quebec, where the frost frequently kills them. Quebec has generally more rainy weather, spring begins later, and winter sooner than at Montreal, where all sorts of fruits ripen a week or two earlier than at Quebec.

Aug. 12th. This afternoon I went out of town, to stay in the country for a couple of days, that I might have more leisure to examine the plants which grow in the woods here, and the state of the country. In order to proceed the better, the governor-general had sent for an Indian from Lorette, to shew us the way, and teach us what use they make of the spontaneous plants hereabouts. This Indian was an Englishman by birth, taken by the Indians thirty years ago, when he was a boy, and adopted by them, according to their custom, instead of a relation of theirs killed by the enemy. Since that time he constantly stayed with them, became a Roman Catholic, and married an Indian woman: he dresses like an Indian, speaks English and French, and many of the Indian languages. In the wars between the French and English, in this country, the French Indians have made many prisoners of both sexes in the English plantations, adopted them afterwards, and they married with people of the Indian nations. From hence the Indian blood in Canada is very much mixed with European blood, and a great part of the Indians now living owe their origin to Europe. It is likewise remarkable that a great part of the people they had taken during the war and incorporated with their nations, especially the young people, did not choose to return to their native country, though their parents and nearest relations came to them and endeavoured to persuade them to it, and though it was in their power to do it. The licentious life led by the Indians, pleased them better than that of their European relations; they dressed like the Indians, and regulated all their affairs in their way. It is therefore difficult to distinguish them, except by their colour, which is somewhat whiter than that of the Indians. There are likewise examples of some Frenchmen going amongst the Indians and following their way of life. There is on the contrary scarce one instance of an Indian's adopting the European customs; but those who were taken prisoners in the war, have always endeavoured to come to their own people again, even after several years of captivity, and though they enjoyed all the privileges that were ever possessed by the Europeans in America.

The lands which we passed over were every where laid out into corn-fields, meadows, or pastures. Almost all round us the prospect presented to our view farms and farm-houses, and excellent fields and meadows. Near the town the land is pretty flat, and intersected now and then by a clear rivulet. The roads are very good, broad, and lined with ditches on each side, in low grounds. Further from the town, the land rises higher and higher, and consists as it were of terraces, one above another. This rising ground is, however, pretty smooth, chiefly without stones, and covered with rich mould. Under that is the black lime-slate, which is so common hereabouts, and is divided into small shivers, and corroded by the air. Some of the strata were horizontal, others perpendicular; I have likewise found such perpendicular strata of lime-slates in other places in the neighbourhood of Quebec. All the hills are cultivated; and some are adorned with fine churches, houses, and corn-fields. The meadows are commonly in the vallies, though

some were likewise on eminences. Soon after we had a fine prospect from one of these hills. Quebec appeared very plain to the eastward, and the river St. Lawrence could likewise be seen; farther distant, on the south-east side of that river, appears a long chain of high mountains, running generally parallel to it, though many miles distant from it; to the west again, at some distance from the rising lands where we were, the hills changed into a long chain of very high mountains, lying very close to each other, and running parallel likewise to the river, that is, nearly from south to north. These high mountains consist of a grey rock-stone, composed of several kinds of stone, which I shall mention in the sequel. These mountains seem to prove, that the lime-slates are of as ancient a date as the grey rock-stone, and not formed in later times; for the amazing large grey rocks lie on the top of the mountains, which consist of black lime-slates.

The high meadows in Canada are excellent, and by far preferable to the meadows round Philadelphia, and in the other English colonies. The further I advanced northward here, the finer were the meadows, and the turf upon them was better and closer. Almost all the grass here is of two kinds, viz. a species of the narrow leaved meadow-grass*; for its spikes† contain either three or four flowers, which are so exceedingly small, that the plant might easily be taken for a bent grass‡; and its seeds have several small downy hairs at the bottom. The other plant, which grows in the meadows, is the white clover§. These two plants form the hay in the meadows; they stand close and thick together, and the meadow-grass (poa) is pretty tall, but has very thin stalks. At the root of the meadow-grass the ground was quite covered with clover, so that one cannot wish for finer meadows than are found here. Almost all the meadows have been formerly corn-fields, as appears from the furrows on the ground, which still remained. They can be mown but once every summer, as spring commences very late.

They were now busied with making hay, and getting it in; and I was told, they had begun about a week ago. They have hay-stacks near most of their meadows, and on the wet ones they make use of conic hay-stacks. Their meadows are commonly without enclosures, the cattle being in the pastures on the other side of the woods, and having cowherds to take care of them where they are necessary.

The corn-fields are pretty large. I saw no drains any where, though they seemed to be wanting in some places. They are divided into ridges, of the breadth of two or three yards broad, between the furrows. The perpendicular height of the middle of the ridge, from the level to the ground, is near one foot. All their corn is summer-corn; for as the cold in winter destroys the corn which lies in the ground, they never sow in autumn. I found white wheat most commonly in the fields. They have likewise large fields with pease, oats, in some places summer-rye, and now and then barley. Near almost every farm I met with cabbages, pumpions, and melons. The fields are not always sown, but lie fallow every two years. The fallow-fields are not ploughed in summer, so the weeds grow without restraint in them, and the cattle are allowed to go on them all summer||.

The houses in the country are built promiscuously of stone or wood. To those of stone they do not employ bricks, as there is not yet any considerable quantity of bricks

* *Poa angustifolia*, Linn.

† *Spiculæ tri vel quadri floræ minimæ*; semina basi pubescentia.

‡ *Agrostis*, Linn.

§ *Trifolium repens*, Linn. *Trifolium pratense album*. C. B.

|| Here follows, in the original, an account of the enclosures made use of near Quebec, which is intended only for the Swedes, but not for a nation that has made such progress in agriculture and husbandry as the English. F.

made here. They therefore take what stones they can find in the neighbourhood, especially the black lime-slates. These are quite compact when broke, but shiver when exposed to the air; however, this is of little consequence, as the stones stick fast in the wall, and do not fall asunder. For want of it, they sometimes make their buildings of lime-stone, or sand-stone, and sometimes of grey rock-stone. The walls of such houses are commonly two feet thick, and seldom thinner. The people here can have lime every where in this neighbourhood. The greater part of the houses in the country are built of wood, and sometimes plaistered over on the outside. The chinks in the walls are filled with clay instead of moss. The houses are seldom above one story high. In every room is either a chimney or stove, or both together. The stoves have the form of an oblong square; some are entirely of iron, about two feet and a half long, one foot and a half, or two feet, high, and near a foot and a half broad; these iron stoves are all cast at the iron-works at Trois Rivières. Some are made of bricks, or stones, not much larger than the iron stoves, but covered at top with an iron plate. The smoke from the stoves is conveyed up the chimney, by an iron pipe. In summer the stoves are removed.

This evening we arrived at Lorette, where we lodged with the Jesuits.

August 13th. In the morning we continued our journey through the woods to the high mountains, in order to see what scarce plants and curiosities we could get there. The ground was flat at first, and covered with a thick wood all round, except in marshy places. Near half the plants, which are to be met with here, grow in the woods and morasses of Sweden.

We saw wild cherry-trees here, of two kinds, which are probably mere varieties, though they differ in several respects. Both are pretty common in Canada, and both have red berries. One kind, which is called *cerifier* by the French, tastes like our alpine cherries, and their acid contracts the mouth, and cheeks. The berries of the other sort have an agreeable sourness, and a pleasant taste*.

The three-leaved hellebore † grows in great plenty in the woods, and in many places it covers the ground by itself. However, it commonly chooses mossy places, that are not very wet; and the wood-sorrel ‡, with the mountain enchanter's night-shade §, are its companions. Its seeds were not yet ripe, and most of the stalks had no seeds at all. This plant is called *tissavoyanne jaune* by the French, all over Canada. Its leaves and stalks are used by the Indians for giving a fine yellow colour to several kinds of work, which they make of prepared skins. The French, who have learned this from them, dye wool and other things yellow with this plant.

We climbed with a great deal of difficulty to the top of one of the highest mountains here, and I was vexed to find nothing at its summit, but what I had seen in other parts of Canada before. We had not even the pleasure of a prospect, because the trees, with which the mountain is covered, obstructed it. The trees that grow here are a kind of horn-beam, or *carpinus ostrya*, Linn., the American elm, the red maple, the sugar-maple, that kind of maple which cures scorched wounds (which I have not yet described), the beech, the common birch-tree, the sugar-birch ||, the forb-tree, the Canada pine, called *perusse*, the mealy-tree with dentated leaves ¶, the ash, the cherry-tree (*cerifier*) just before described, and the berry-bearing yew.

* The kind called *cerifier* by the French, I described thus in my journal: *cerasus foliis ovatis serratis, ferraturis profundis fere subulatis, fructu racemoso*. The other thus: *cerasus foliis lanceolatis, cronato-ferratis, acutis, fructu fere solitario*.

† *Helleborus trifolius*.

|| *Betula nigra*, Linn.

‡ *Oxalis acetosella*, Linn.

¶ *Viburnum dentatum*, Linn.

§ *Circæa alpina*, Linn.

The gnats in this wood were more numerous than we could have wished. Cold water they reckon the best remedy against the bite, when the wounded places are washed with it immediately after.

At night we returned to Lorette, having accurately examined the plants of note we met with to-day.

August 14th. Lorette is a village three French miles to the westward of Quebec, inhabited chiefly by Indians of the Huron nation, converted to the Roman Catholic religion. The village lies near a little river, which falls over a rock there, with a great noise, and turns a saw-mill, and a flour-mill. When the Jesuit, who is now with them, arrived among them, they lived in their usual huts, which are made like those of the Laplanders. They have since laid aside this custom, and built all their houses after the French fashion. In each house are two rooms, viz. their bed-room, and the kitchen on the outside before it. In the room is a small oven of stone, covered at top with an iron plate. Their beds are near the wall, and they put no other clothes on them than those which they are dressed in. Their other furniture and utensils look equally wretched. Here is a fine little church, with a steeple and bell. The steeple is raised pretty high, and covered with white tin plates. They pretend that there is some similarity between this church in its figure and disposition, and the Santa Casa, at Loretto in Italy, from whence this village has got its name. Close to the church is a house built of stone, for the clergymen, who are two Jesuits, that constantly live here. The divine service is as regularly attended here as in any other Roman Catholic church; and I was pleased with seeing the alacrity of the Indians, especially of the women, and hearing their good voices, when they sing all sorts of hymns in their own language. The Indians dress chiefly like the other adjacent Indian nations; the men, however, like to wear waistcoats, or jackets, like the French. The women keep exactly to the Indian dress. It is certain, that these Indians and their ancestors, long since, on being converted to the Christian religion, have made a vow to God, never to drink strong liquors. This vow they have kept pretty inviolable hitherto, so that one seldom sees one of them drunk, though brandy and other strong liquors are goods which other Indians would sooner be killed for than part with them.

These Indians have made the French their patterns in several things, besides the houses. They all plant maize; and some have small fields of wheat and rye. Many of them keep cows. They plant our common sun-flower* in their maize-fields, and mix the seeds of it into their sagamite, or maize-soup. The maize which they plant here is of the small sort, which ripens sooner than the other: its grains are smaller, but give more and better flour in proportion. It commonly ripens here at the middle, sometimes however at the end, of August.

The Swedish winter-wheat, and winter-rye, has been tried in Canada, to see how well it would succeed; for they employ nothing but summer-corn here, it having been found that the French wheat and rye dies here in winter, if it be sown in autumn. Dr. Sarrazin has therefore (as I was told by the eldest of the two Jesuits here) got a small quantity of wheat and rye, of the winter-corn sort, from Sweden. It was sown in autumn, not hurt by the winter, and bore fine corn. The ears were not so large as those of the Canada corn, but weighed near twice as much, and gave a greater quantity of finer flour than that summer-corn. Nobody could tell me, why the experiments have not been continued. They cannot, I am told, bake such white bread here of the summer-corn, as they can in France of their winter-wheat. Many people

* *Helianthus annuus.*

have assured me, that all the summer-corn now employed here came from Sweden, or Norway: for the French, on their arrival, found the winters in Canada too severe for the French winter-corn, and their summer-corn did not always ripen, on account of the shortness of summer. Therefore they began to look upon Canada as little better than an useless country, where nobody could live; till they fell upon the expedient of getting their summer-corn from the most northern parts of Europe, which has succeeded very well.

This day I returned to Quebec, making botanical observations by the way.

August 15th. The new governor-general of all Canada, the Marquis de la Jonquiere, arrived last night in the river before Quebec; but it being late, he reserved his public entrance for to-day. He had left France on the second of June, but could not reach Quebec before this time, on account of the difficulty which great ships find in passing the sands in the river St. Lawrence. The ships cannot venture to go up without a fair wind, being forced to run in many bendings, and frequently in a very narrow channel. To-day was another great feast, on account of the Ascension of the Virgin Mary, which is very highly celebrated in Roman Catholic countries. This day was accordingly doubly remarkable, both on account of the holiday, and of the arrival of the new governor-general, who is always received with great pomp, as he represents a viceroy here.

About eight o'clock the chief people in town assembled at the house of Mr. de Vaudreuil, who had lately been nominated governor of Trois Rivières, and lived in the lower town, and whose father had likewise been governor-general of Canada. Thither came likewise the Marquis de la Galissonniere, who had till now been governor-general, and was to sail for France with the first opportunity. He was accompanied by the people belonging to the government. I was likewise invited to see this festivity. At half an hour after eight the new governor-general went from the ship into a barge, covered with red cloth, upon which a signal with cannons was given from the ramparts, for all the bells in the town to be set a ringing. All the people of distinction went down to the shore to salute the governor, who, on alighting from the barge, was received by the Marquis la Galissonniere. After they had saluted each other, the commandant of the town addressed the new governor-general in a very elegant speech, which he answered very concisely; after which all the cannon on the ramparts gave a general salute. The whole street, up to the cathedral, was lined with men in arms, chiefly drawn out from among the burghesses. The governor-general then walked towards the cathedral, dressed in a suit of red, with abundance of gold lace. His servants went before him in green, carrying fire-arms on their shoulders. On his arrival at the cathedral he was received by the bishop of Canada, and the whole clergy assembled. The bishop was arrayed in his pontifical robes, and had a long gilt tiara on his head, and a great crozier of massy silver in his hand. After the bishop had addressed a short speech to the governor-general, a priest brought a silver crucifix on a long stick, (two priests, with lighted tapers in their hands, going on each side of it) to be kissed by the governor. The bishop and the priests then went through the long walk up to the choir. The servants of the governor-general followed with their hats on, and arms on their shoulders. At last came the governor-general and his suite, and after them a crowd of people. At the beginning of the choir the governor-general, and the General de la Galissonniere, stood before a chair covered with red cloth, and stood there during the whole time of the celebration of the mass, which was celebrated by the bishop himself. From the church he went to the palace, when the gentlemen of note in the town afterwards went to pay their respects to him. The religious

ligious of the different orders, with their respective superiors, likewise came to him, to testify their joy on account of his happy arrival. Among the numbers that came to visit him, none staid to dine but those that were invited before-hand, among which I had the honour to be. The entertainment lasted very long, and was as elegant as the occasion required.

The governor-general, Marquis de la Jonquiere, was very tall, and, at that time, something above sixty years old. He had fought a desperate naval battle with the English in the last war, but had been obliged to surrender, the English being, as it was told, vastly superior in the number of ships and men. On this occasion he was wounded by a ball, which entered one side of his shoulder, and came out at the other. He was very complaisant, but knew how to preserve his dignity, when he distributed favours.

Many of the gentlemen, present at this entertainment asserted that the following expedient had been successfully employed to keep wine, beer, or water, cool during summer. The wine or other liquor is bottled; the bottles are well corked, hung up in the air, and wrapped in wet cloths. This cools the wine in the bottles, notwithstanding it was quite warm before. After a little while the cloths are again made wet, with the coldest water that is to be had, and this is always continued. The wine or other liquor, in the bottles is then always colder than the water with which the cloths are made wet. And though the bottles should be hung up in the sunshine the above way of proceeding will always have the same effect*.

August 16th. The occidental arbor vitæ† is a tree which grows very plentiful in Canada, but not much farther south. The most southerly place I have seen it in, is a place a little on the south side of Saratoga, in the province of New-York, and likewise near Casses, in the same province, which places are in forty-two degrees and ten minutes north latitude.

Mr. Bartram, however, informed me, that he had found a single tree of this kind in Virginia, near the Falls in the river James. Doctor Colden likewise asserted, that he had seen it in many places round his seat at Coldingham, which lies between New-York and Albany, about forty-one degrees thirty minutes north latitude. The French, all over Canada, call it *cedre blanc*. The English and Dutch in Albany, likewise call it the white cedar. The English in Virginia, have called a *thuya*, which grows with them, a juniper.

The places and soil where it grows best, are not always alike, however it generally succeeds in such ground where its roots have sufficient moisture. It seems to prefer swamps, marshes, and other wet places to all others, and there it grows pretty tall. Stony hills, and places where a number of stones lie together, covered with several kinds of mosses‡, seemed to be the next in order where it grows. When the sea shores were hilly and covered with mossy stones, the *thuya* seldom failed to grow on them. It is likewise seen now and then on the hills near rivers, and other high grounds,

* It has been observed by several experiments that any liquor dipt into another liquor, and then exposed to the air for evaporation, will get a remarkable degree of cold; the quicker the evaporation succeeds, after repeated dippings, the greater is the cold. Therefore spirit of wine evaporating quicker than water, cools more than water: and spirit of sal ammoniac, made by quick-lime, being still more volatile than spirit of wine, its cooling quality is still greater. The evaporation succeeds better by moving the vessel containing the liquor, by exposing it to the air, and by blowing upon it, or using a pair of bellows. See de Mairan, Dissertation sur le Glace, Prof. Richman in Nov. Comment. Petrop, ad an. 1747 & 1748. and Dr. Cullen in the Edinburgh physical and literary Essays and Observations. Vol. II. p. 145. F.

† *Thuja occidentalis*, Linn.

‡ Lichen, bryum, hypnum.

which

which are covered with a dust like earth or mould; but it is to be observed that such places commonly carry a fourish water with them, or receive moisture from the upper countries. I have however seen it growing in some pretty dry places; but there it never comes to any considerable size. It is pretty frequent in the clefts of mountains, but cannot grow to any remarkable height or thickness. The tallest trees I have found in the woods in Canada, were about thirty or thirty-six feet high. A tree of exactly ten inches diameter had ninety-two rings round the stem*; another of one foot and two inches in diameter had one hundred and forty-two rings†.

The inhabitants of Canada generally make use of this tree in the following cases. It being reckoned the most durable wood in Canada, and which best withstands putrefaction, so as to remain undamaged for above a man's age, enclosures of all kinds are scarce made of any other than this wood. All the posts which are driven into the ground, are made of the Thuya wood. The palisades round the forts in Canada are likewise made of the same wood. The planks in the houses are made of it; and the thin narrow pieces of wood which form both the ribs and the bottom of the bark boats, commonly made use of here, are taken from this wood, because it is pliant enough for the purpose, especially whilst it is fresh, and likewise because it is very light. The Thuya wood is reckoned one of the best for the use of lime-kilns. Its branches are used all over Canada for besoms; and the twigs and leaves of it being naturally bent together, seem to be very proper for the purpose. The Indians make such besoms and bring them to the towns for sale, nor do I remember having seen any besoms of any other wood. The fresh branches have a peculiar, agreeable scent, which is pretty strongly smelled in houses where they make use of besoms of this kind.

This thuya is made use of for several medicinal purposes. The commandant of Fort St. Frederick, M. de Lusignan, could never sufficiently praise its excellence for rheumatic pains. He told me he had often seen it tried, with remarkable good success, upon several persons, in the following manner. The fresh leaves are pounded in a mortar, and mixed with hog's grease, or any other grease. This is boiled together till it becomes a salve, which is spread on linen, and applied to the part where the pain is. The salve gives certain relief in a short time. Against violent pains, which move up and down in the thighs, and sometimes spread all over the body, they recommend the following remedy. Take of the leaves of a kind of polypody‡ four-fifths, and of the cones of the thuya one-fifth, both reduced to a coarse powder by themselves, and mixed together afterwards. Then pour milk-warm water on it, so as to make a poultice, which spread on linen, and wrap it round the body: but as the poultice burns like fire, they commonly lay a cloth between it and the body, otherwise it would burn and scorch the skin. I have heard this remedy praised beyond measure, by people who said they had experienced its good effects. An Iroquese Indian told me, that a decoction of thuya leaves was used as a remedy for the cough. In the neighbourhood of Saratoga, they use this decoction in the intermitting fevers.

The thuya tree keeps its leaves, and is green all winter. Its seeds are ripe towards the end of September, old style. The fourth of October of this year, 1749, some of the cones, especially those which stood much exposed to the heat of the sun, had already dropt their seeds, and all the other cones were opening in order to shed them. This tree has, in common with many other American trees, the quality of growing

* Of these rings or circles, it is well known all trees get but one every year, so that they serve to ascertain the age of the tree, and the quickness or slowness of its growth. F.

† The bark is not included, when I speak of the diameters of these trees.

‡ Polypodium fronde pinnata, pinnis alternis ad basin superne appendiculatis.

plentiful in marshes and thick woods, which may be with certainty called its native places. However, there is scarce a single thuya tree in those places which bears seeds; if, on the other hand, a tree accidentally stands on the outside of a wood, on the sea shore, or in a field, where the air can freely come at it, it is always full of seeds. I have found this to be the case with the thuya, on innumerable occasions. It is the same likewise with the sugar-maple, the maple which is good for healing scorched wounds, the white fir-tree, the pine called Perusse, the mulberry and several others.

August 17th. This day I went to see the nunnery of the Ursulines, which is disposed nearly in the same way as the two other nunneries. It lies in the town, and has a very fine church. The nuns are renowned for their piety, and they go less abroad than any others. The men are likewise not allowed to go into this monastery, except by the special licence of the bishop. At the desire of the Marquis de la Galliffonniere the bishop granted me leave to visit this monastery together with the royal physician M. Gauthier. On our arrival we were received by the abbess, who was attended by a great number of nuns, for the most part old ones. We saw the church; and, it being Sunday, we found some nuns on every side of it kneeling by themselves, and saying prayers. As soon as we came into the church, the abbess and the nuns with her dropt on their knees, and so did M. Gauthier and myself. We then went to an apartment or small chapel dedicated to the Virgin Mary, at the entrance of which, they all fell on their knees again. We afterwards saw the kitchen, the dining hall, and the apartment they work in, which is large and fine. They do all sorts of neat work there, gild pictures, make artificial flowers, &c. The dining hall is disposed in the same manner as in the other two monasteries. Under the tables are small drawers for each nun to keep her napkin, knife and fork, and other things in. Their cells are small, and each nun has one to herself. The walls are not painted; a little bed, a table with a drawer, and a crucifix, and pictures of saints on it, and a chair, constitute the whole furniture of a cell. We were then led into a room full of young ladies about twelve years old and below that age, sent thither by their parents to be instructed in reading, and in matters of religion. They are allowed to go to visit their relations once a day, but must not stay away long. When they have learnt reading, and have received instructions in religion, they return to their parents again. Near the monastery is a fine garden, which is surrounded with a high wall. It belongs to this institution, and is stocked with all sorts of kitchen-herbs and fruit-trees. When the nuns are at work, or during dinner, every thing is silent in the rooms, unless some one of them reads to the others; but after dinner, they have leave to take a walk for an hour or two in the garden, or to divert themselves within-doors. After we had seen every thing remarkable here, we took our leave, and departed.

About a quarter of a Swedish mile to the west of Quebec, is a well of mineral waters, which carries a deal of iron ochre with it, and has a pretty strong taste. M. Gauthier said, that he had prescribed it with success in costive cases, and the like diseases.

I have been assured, that there are no snakes in the woods and fields round Quebec, whose bite is poisonous; so that one can safely walk in the grass. I have never found any that endeavoured to bite, and all were very fearful. In the south parts of Canada, it is not adviseable to be off one's guard.

A very small species of black ants * live in ant-hills, in high grounds, in woods; they look exactly like our Swedish ants, but are much less.

* *Formica nigra*. Linn.

August 21st. To-day there were some people of three Indian nations in this country with the governor-general, viz. Hurons, Mickmacks, and Anies *; the last of which are a nation of-Iroquese, and allies of the English, and were taken prisoners in the last war.

The Hurons are some of the same Indians with those who live at Lorette, and have received the Christian religion. They are tall, robust people, well shaped, and of a copper-colour. They have short black hair, which is shaved on the forehead, from one ear to the other. None of them wear hats or caps. Some have ear-rings, others not. Many of them have the face painted all over with vermillion; others have only strokes of it on the forehead, and near the ears; and some paint their hair with vermillion. Red is the colour they chiefly make use of in painting themselves; but I have likewise seen some, who had daubed their face with a black colour. Many of them have figures in the face, and on the whole body, which are stained into the skin, so as to be indelible. The manner of making them shall be described in the sequel. These figures are commonly black; some have a snake painted in each cheek, some have several crosses, some an arrow, others the sun, or any thing else their imagination leads them to. They have such figures likewise on the breast, thighs, and other parts of the body; but some have no figures at all. They wear a shirt, which is either white or checked, and a shaggy piece of cloth, which is either blue or white, with a blue or red stripe below. This they always carry over their shoulders, or let it hang down, in which case they wrap it round their middle. Round their neck, they have a string of violet wampums, with little white wampums between them. These wampums are small, of the figure of oblong pearls, and made of the shells which the English call clams †. At the end of the wampum strings, many of the Indians wear a large French silver coin, with the king's effigy, on their breasts. Others have a large shell on the breast, of a fine white colour, which they value very high, and is very dear; others, again, have no ornament at all round the neck. They all have their breasts uncovered. Before them hangs their tobacco-pouch, made of the skin of an animal, and the hairy side turned outwards. Their shoes are made of skins, and bear a great resemblance to the shoes without heels, which the women in Finland make use of. Instead of stockings, they wrap the legs in pieces of blue cloth, as I have seen the Russian boors do.

The Mickmacks are dressed like the Hurons, but distinguish themselves by their long strait hair, of a jetty-black colour. Almost all the Indians have black strait hair; however, I have met with a few, whose hair was pretty much curled. But it is to be observed, that it is difficult to judge of the true complexion of the Canada Indians, their blood being mixed with the Europeans, either by the adopted prisoners of both sexes, or by the Frenchmen, who travel in the country, and often contribute their share towards the encrease of the Indian families, their women not being very shy. The Mickmacks are commonly not so tall as the Hurons. I have not seen any Indians whose hair was as long and strait as theirs. Their language is different from that of the Hurons; therefore there is an interpreter here for them on purpose.

The Anies are the third kind of Indians which came hither. Fifty of them went out in the war, being allies of the English, in order to plunder in the neighbourhood of Montreal. But the French, being informed of their scheme, laid an ambush, and killed with the first discharge of their guns forty-four of them; so that only the four who were here to-day saved their lives, and two others, who were ill at this time. They are as tall as the Hurons, whose language they speak. The Hurons seem to have a longer,

* Probably onidocs.

† Venus mercenaria. Linn.

and the Anies a rounder face. The Anies have something cruel in their looks; but their dress is the same as that of the other Indians. They wear an oblong piece of white tin between the hair which lies on the neck. One of those I saw had taken a flower of the rose mallow, out of a garden, where it was in full blossom at this time, and put it among the hair at the top of his head. Each of the Indians has a tobacco-pipe of grey lime-stone, which is blackened afterwards, and has a long tube of wood. There were no Indian women present at this interview. As soon as the governor-general came in, and was seated in order to speak with them, the Mickmacks sat down on the ground, like Laplanders, but the other Indians took chairs.

There is no printing-press in Canada, though there formerly was one; but all books are brought from France, and all the orders made in the country are written, which extends even to the paper-currency. They pretend that the press is not yet introduced here, lest it should be the means of propagating libels against the government, and religion. But the true reason seems to lie in the poorness of the country, as no printer could put off a sufficient number of books for his subsistence; and another reason may be, that France may have the profit arising from the exportation of books hither.

The meals here are in many respects different from those in the English provinces. This perhaps depends upon the difference of custom, taste, and religion, between the two nations. They eat three meals a day, viz. breakfast, dinner, and supper. They breakfast commonly between seven and eight. For the French here rise very early, and the governor-general can be spoke to at seven o'clock, which is the time when he has his levee. Some of the men dip a piece of bread in brandy, and eat it; others take a dram of brandy, and eat a piece of bread after it. Chocolate is likewise very common for breakfast, and many of the ladies drink coffee. Some eat no breakfast at all. I have never seen tea made use of; perhaps because they can get coffee and chocolate from the French provinces in South America; but must get tea from China, for which it is not worth their while to send the money out of their country. Dinner is pretty exactly at noon. People of quality have a great variety of dishes, and the rest follow their example, when they invite strangers. The loaves are oval, and baked of wheat flour. For each person they put a plate, napkin, spoon, and fork. Sometimes they likewise give knives; but they are generally omitted, all the ladies and gentlemen being provided with their own knives. The spoons and forks are of silver, and the plates of Delft ware. The meal begins with a soup, with a good deal of bread in it. Then follow fresh meats of various kinds, boiled and roasted, poultry, or game, fricassees, ragoos, &c. of several sorts; together with different kinds of sallads. They commonly drink red claret at dinner, mixed with water; and spruce beer is likewise much in use. The ladies drink water and sometimes wine. After dinner the fruit and sweet-meats are served up, which are of many different kinds, viz. walnuts from France or Canada, either ripe or pickled; almonds, raisins, hazelnuts, several kinds of berries, which are ripe in the summer season, such as currents, cran-berries, which are preserved in treacle; many preserves in sugar, as straw-berries, rasp-berries, black-berries, and moss-berries. Cheese is likewise a part of the desert, and so is milk, which they eat last of all with sugar. Friday and Saturday they eat no flesh, according to the Roman Catholic rites; but they well know how to guard against hunger. On those days they boil all sorts of kitchen-herbs, and fruit; fishes, eggs, and milk, prepared in various ways. They cut cucumbers into slices, and eat them with cream, which is a very good dish. Sometimes they put whole cucumbers on the table, and every body that likes them takes one, peels, and slices it, and dips the slices into salt, eating them like raddishes. Melons abound here, and are always eaten with sugar.

They

They never put any sugar into wine or brandy, and upon the whole, they and the English do not use half so much sugar, as we do in Sweden; though both nations have large sugar plantations in their West Indian possessions. They say no grace before, or after their meals, but only cross themselves, which is likewise omitted by some. Immediately after dinner, they drink a dish of coffee, without cream. Supper is commonly at seven o'clock, or between seven and eight at night, and the dishes the same as at dinner. Pudding and punch are not to be met with here, though the latter is well known.

August 23. In many places hereabouts they use their dogs to fetch water out of the river. I saw two great dogs to-day put before a little cart, one before the other. They had neat harness, like horses, and bits in their mouths. In the cart was a barrel. The dogs are directed by a boy, who runs behind the cart, and as soon as they come to the river, they jump in of their own accord. When the barrel is filled, the dogs draw their burthen up the hill again, to the house they belong to. I have frequently seen dogs employed in this manner, during my stay at Quebec. Sometimes they put but one dog before the water carts, which are made small on purpose. The dogs are not very great, hardly of the size of our common farmers dogs. The boys that attend them have great whips, with which they make them go on occasionally. I have seen them fetch not only water, but likewise wood, and other things. In winter it is customary in Canada, for travellers to put dogs before little sledges, made on purpose to hold their cloathes, provisions, &c. Poor people commonly employ them on their winter journies, and go on foot themselves. Almost all the wood, which the poorer people in this country fetch out of the woods in winter, is carried by dogs, which have therefore got the name of horses of the poor people. They commonly place a pair of dogs before each load of wood. I have likewise seen some neat little sledges, for ladies to ride in, in winter; they are drawn by a pair of dogs, and go faster on a good road than one would think. A middle-sized dog is sufficient to draw a single person, when the roads are good. I have been told by old people, that horses were very scarce here in their youth, and almost all the land-carriage was then effected by dogs. Several Frenchmen, who have been among the Esquimaux on Terra Labrador, have assured me, that they not only make use of dogs for drawing drays, with their provisions, and other necessaries, but are likewise drawn by them themselves, in little sledges.

August 25th. The high hills to the west of the town abound with springs. These hills consist of the black lime-slate, before mentioned, and are pretty steep, so that it is difficult to get to the top. Their perpendicular height is about twenty or four-and-twenty yards. Their summits are destitute of trees, and covered with a thin crust of earth, lying on the lime-slates, and are employed for corn-fields, or pastures. It seems inconceivable, therefore, from whence these naked hills could take so many running springs, which in some places gush out of the hills, like torrents. Have these hills the quality of attracting the water out of the air in the day time, or at night? Or are the lime-slates more apt to it than others?

All the horses in Canada are strong, well made, swift, as tall as the horses of our cavalry, and of a breed imported from France. The inhabitants have the custom of docking the tails of their horses, which is rather hard upon them here, as they cannot defend themselves against the numerous swarms of gnats, gad-flies, and horse-flies. They put the horses one before the other in their carts, which has probably occasioned the docking of their tails, as the horses would hurt the eyes of those behind them, by moving their tails backwards and forwards. The governor-general, and a few of the chief people in town, have coaches, the rest make use of open horse-chairs.

It

It is a general complaint, that the country people begin to keep too many horses, by which means the cows are kept short of food in winter.

The cows have likewise been imported from France, and are of the size of our common Swedish cows. Every body agreed that the cattle, which were born of the original French breed, never grow up to the same size. This they ascribe to the cold winters, during which they are obliged to put their cattle into stables, and give them but little food. Almost all the cows have horns, a few, however, I have seen without them. A cow without horns would be reckoned an unheard of curiosity in Pennsylvania. The beef and veal at Quebec is reckoned fatter and more palatable than at Montreal. Some look upon the salty pastures below Quebec as the cause of this difference. In Canada the oxen draw with the horns, but in the English colonies they draw with their withers, as horses do. The cows vary in colour; however, most of them are either red or black.

Every countryman commonly keeps a few sheep, which supply him with as much wool as he wants to clothe himself with. The better sort of clothes are brought from France. The sheep degenerate here, after they are brought from France, and their progeny still more so. The want of food in winter is said to cause this degeneration.

I have not seen any goats in Canada, and I have been assured that there are none. I have seen but very few in the English colonies, and only in their towns, where they are kept on account of some sick people, who drink the milk by the advice of their physicians.

The harrows are triangular; two of the sides are six feet, and the third four feet long. The teeth, and every other part of the harrows are of wood. The teeth are about five inches long, and about as much distant from each other.

The prospect of the country about a quarter of a mile Swedish, north of Quebec, on the west side of the river St. Lawrence, is very fine. The country is very steep towards the river, and grows higher as you go farther from the water. In many places it is naturally divided into terraces. From the heights, one can look a great way: Quebec appears very plain to the south, and the river St. Lawrence to the east, on which were vessels sailing up and down. To the west are the high mountains, which the hills of the river end with. All the country is laid out for corn-fields, meadows, and pastures; most of the fields were sown with wheat, many with white oats, and some with pease. Several fine houses and farms are interspersed all over the country, and none are ever together. The dwelling house is commonly built of black lime-slates, and generally white-washed on the outside. Many rivulets and brooks roll down the high grounds, above which the great mountains lie, and which consist entirely of the black lime-slates, that shiver in pieces in the open air. On the lime-slates lies a mould of two or three feet in depth. The soil in the corn-fields is always mixed with little pieces of the lime-slate. All the rivulets cut their beds deep into the ground; so that their shores are commonly of lime-slate. A dark grey lime-stone is sometimes found among the strata, which, when broke, smells like stink-stone.

They were now building several ships below Quebec, for the king's account. However, before my departure, an order arrived from France, prohibiting the further building of ships of war, except those which were already on the stocks; because they had found, that the ships built of American oak do not last so long as those of European oak. Near Quebec is found very little oak, and what grows there is not fit for use, being very small; therefore they are obliged to fetch their oak timber from those parts of Canada which border upon New England. But all the North American oaks have

the quality of lasting longer, and withstanding putrefaction better, the farther north they grow, and *vice versa*. The timber from the confines of New England is brought in floats or rafts on the rivers near those parts, and near the lake St. Pierre, which fall into the great river St. Lawrence. Some oak is likewise brought from the country between Montreal and Fort St. Frederick, or Fort Champlain; but it is not reckoned so good as the first, and the place it comes from is further distant.

August 26th. They shewed a green earth, which had been brought to the general, Marquis de la Galissonniere, from the upper parts of Canada. It was a clay, which cohered very fast together, and was of a green colour throughout, like verdigrease*.

All the brooks in Canada contain crawfish, of the same kind with ours. The French are fond of eating them, and say they are vastly decreased in number since they have begun to catch them.

The common people in the country seem to be very poor. They have the necessaries of life, and but little else. They are content with meals of dry bread and water, bringing all other provisions, such as butter, cheese, flesh, poultry, eggs, &c. to town, in order to get money for them, for which they buy clothes and brandy for themselves, and dresses for their women. Notwithstanding their poverty, they are always cheerful, and in high spirits.

August 29th. By the desire of the governor-general, Marquis de la Jonquiere, and of Marquis de la Galissonniere, I set out with some French gentlemen to visit the pretended silver-mine, or the lead-mine, near the bay St. Paul. I was glad to undertake this journey, as it gave me an opportunity of seeing a much greater part of the country than I should otherwise have done. This morning therefore we set out on our tour in a boat, and went down the river St. Lawrence.

The prospect near Quebec is very lively from the river. The town lies very high, and all the churches and other buildings appear very conspicuous. The ships in the river below ornament the landscape on that side. The powder magazine, which stands at the summit of the mountain on which the town is built, towers above all the other buildings.

The country we passed by afforded a no less charming sight. The river St. Lawrence flows nearly from south to north here; on both sides of it are cultivated fields, but more on the west side than on the east side. The hills on both shores are steep and high. A number of fine hills separated from each other large fields, which looked quite white from the corn with which they are covered, and excellent woods of deciduous trees, made the country round us look very pleasant. Now and then we saw a church of stone, and in several places brooks fell from the hills into the river. Where the brooks are considerable, there they have made saw-mills and water-mills.

After rowing for the space of a French mile and a half, we came to the isle of Orleans, which is a large island, near seven French miles and a half long, and almost two of those miles broad, in the widest part. It lies in the middle of the river St. Lawrence, is very high, has steep and very woody shores. There are some places without trees, which have farm houses below, quite close to the shore. The isle itself is well cultivated, and nothing but fine houses of stone, large corn-fields, meadows, pastures, woods of deciduous trees, and some churches built of stone, are to be seen on it.

* It was probably impregnated with particles of copper ore.

We went into that branch of the river which flows on the west side of the isle of Orleans, it being the shortest. It is reckoned about a quarter of a French mile broad, but ships cannot take this road, on account of the sand banks which lie here near the projecting points of land, and on account of the shallowness of the water, the rocks and stones at the bottom. The shores on both sides still kept the same appearance as before. On the west side, or on the continent, the hills near the river consist throughout of black lime-slate, and the houses of the peasants are made of this kind of stone, white-washed on the outside. Some few houses are of different kinds of stone. The row of ten mountains, which is on the west side of the river, and runs nearly from south to north, gradually comes nearer to the river: for at Quebec they are near two French miles distant from the shore; but nine French miles lower down the river they are almost close to the shore. These mountains are generally covered with woods, but in some places the woods have been destroyed by accidental fires. About eight French miles and a half from Quebec, on the west side of the river, is a church called St. Anne, close to the shore. This church is remarkable, because the ships from France and other parts, as soon as they are got so far up the river St. Lawrence, as to get sight of it, give a general discharge of their artillery, as a sign of joy, that they have passed all danger in the river, and have escaped all the sands in it.

The water had a pale red colour, and was very dirty in those parts of the river which we saw to-day, though it was every where computed above six fathoms deep. Somewhat below St. Anne, on the west side of the river St. Lawrence, another river, called le Grande Riviere, or the Great River, falls in it. Its water flows with such violence, as to make its way almost into the middle of the branch of the river St. Lawrence, which runs between the continent and the isle of Orleans.

About two o'clock in the afternoon the tide began to flow up the river, and the wind being likewise against us, we could not proceed any farther, till the tide began to ebb. We therefore took up our night's lodging in a great farm belonging to the priests in Quebec, near which is a fine church called St. Joachim, after a voyage of about eight French miles. We were exceeding well received here. The king has given all the country round about this place to the seminary, or the priests at Quebec, who have leased it to farmers who have built houses on it. Here are two priests, and a number of young boys, whom they instruct in reading, writing, and Latin. Most of these boys are designed for priests: directly opposite to this farm, to the eastward, is the north-east point, or the extremity of the isle of Orleans.

All the gardens in Canada abound with red currant shrubs, which were at first brought over from Europe. They grow excessively well here, and the shrubs or bushes are quite red, being covered all over with berries.

The wild vines * grow pretty plentifully in the woods. In all other parts of Canada they plant them in the gardens, near harbours and summer houses. The summer-houses are made entirely of laths, over which the vines climb with their tendrils, and cover them entirely with their foliage, so as to shelter them entirely from the heat of the sun. They are very refreshing and cool in summer.

The strong contrary winds obliged us to lie all night at St. Joachim.

August 30th. This morning we continued our journey in spite of the wind, which was very violent against us. The water in the river begins to get a brackish taste, when the tide is highest, somewhat below St. Joachim; and the farther one goes down,

* *Vitis labrusca* & *vulpina*.

the more the saline taste encreases. At first the western shore of the river has fine, but low corn-fields, but soon after the high mountains run close to the river side. Before they come to the river, the hilly shores consist of black lime-slate; but as soon as the high mountains appear on the river side, the lime-slates disappear. For the stone, of which the high mountains consist, is a chalky rock-stone, mixed with glimmer and quartz*. The glimmer is black, the quartz partly violet, and partly grey. All the four constituent parts are so well mixed together, as not to be easily separated by an instrument, though plainly distinguishable with the eye. During our journey to-day, the breadth of the river was generally three French miles. They shewed me the turnings the ships are obliged to sail in, which seem to be very troublesome, as they are obliged to bear away for either shore as occasion requires, or as the rocks and sands in the river oblige them to do.

For the distance of five French miles we had a very dangerous passage to go through; for the whole western shore, along which we rowed, consists of very high and steep mountains, where we could not have found a single place to land with safety, during the space of five miles, in case a high wind had arisen. There are indeed two or three openings, or holes, in the mountains, into which one could have drawn the boat, in the greatest danger. But they are so narrow, that in case the boat could not find them in the hurry, it would inevitably be dashed against the rocks. These high mountains are either quite bare, or covered with some small firs standing far asunder. In some places there are great clefts going down the mountains, in which trees grow very close together, and are taller than on the other parts of the mountain; so that those places look like quick hedges, planted on the solid rock. Soon after we passed a small church, and some farms round it. The place is called Petite Riviere, and they say its inhabitants are very poor, which seems very probable. They have no more land to cultivate than what lies between the mountains and the river, which in the widest part is not above three musket-shot, and in most parts but one broad. About seventeen French miles from Quebec the water is so salty in the river that no one can drink it, our rowers therefore provided themselves with a kettle full of fresh water this morning. About five o'clock in the evening we arrived at bay St. Paul, and took our lodgings with the priests, who have a fine large house here, and entertained us very hospitably.

Bay St. Paul is a small parish, about eighteen French miles below Quebec, lying at some distance from the shore of a bay formed by the river, on a low plain. It is surrounded by high mountains on every side, one large gap excepted, which is over against the river. All the farms are at some distance from each other. The church is reckoned one of the most ancient in Canada; which seems to be confirmed by its bad architecture, and want of ornaments; for the walls are formed of pieces of timber, erected at about two feet distance from each other, supporting the roof. Between these pieces of timber, they have made the walls of the church of lime-slate; the roof is flat; the church has no steeple, but a bell fixed above the roof, in the open air. Almost all the country in this neighbourhood belongs to the priests, who have leased it to the farmers. The inhabitants live chiefly upon agriculture, and making of tar, which last is sold at Quebec.

This country being low, and situated upon a bay of the river, it may be conjectured, that this flat ground was formerly part of the bottom of the river, and formed itself either by a decrease of water in the river, or by an encrease of earth, which was carried

* *Saxum micaceo quarzoso calcarium.*

upon it from the continent by the brooks, or thrown on it by storms. A great part of the plants which are to be met with here are likewise marine; such as glass-wort, sea milk-wort, and sea-side pease*. But when I have asked the inhabitants, whether they find shells in the ground by digging for wells, they always answered in the negative. I received the same answer from those who live in the low fields directly north of Quebec, and all agreed, that they never found any thing by digging, but different kinds of earth and sand.

It is remarkable, that there is generally a different wind in the bay from that in the river, which arises from the high mountains, covered with tall woods, with which it is surrounded on every side but one. For example, when the wind comes from the river, it strikes against one of the mountains at the entrance of the bay, it is reflected, and consequently takes a direction quite different from what it had before.

I found sand of three kinds upon the shore; one is a clear coarse sand, consisting of angulated grains of quartz, and is very common on the shore; the other is a fine black sand, which I have likewise found in abundance on the shores of Lake Champlain†, and which is common all over Canada. Almost every grain of it is attracted by the magnet. Besides this, there is a garnet-coloured sand‡, which is likewise very fine. This may owe its origin to the garnet-coloured grains of sands which are to be found in all the stones and mountains here near the shore. The sand may have arisen from the crumbled pieces of some stones, or the stones may have been composed of it. I have found both this and the black sand on the shores, in several parts of this journey; but the black sand was always the most plentiful.

August 31st. All the high hills in the neighbourhood sent up a smoke this morning, as from a charcoal-kiln.

Gnats are innumerable here; and as soon as one looks out of doors, they immediately attack him; and they are still worse in the woods. They are exactly the same gnats as our common Swedish ones, being only somewhat less than the North American gnats all are. Near Fort St. Jean, I have likewise seen gnats which were the same with ours, but they were somewhat bigger, almost of the size of our crane-flies§. Those which are here beyond measure blood-thirsty. However, I comforted myself, because the time of their disappearance was near at hand.

This afternoon we went still lower down the river St. Lawrence, to a place, where, we were told, there were silver or lead mines. Somewhat below bay St. Paul, we passed a neck of land, which consists entirely of a grey, pretty compact lime-stone, lying in dipping, and almost perpendicular strata. It seems to be merely a variety of the black lime-slates. The strata dip to the south-east, and baslet out to the north-west. The thickness of each is from ten to fifteen inches. When the stone is broken, it has a strong smell, like stink-stone. We kept, as before, to the western shore of the river, which consists of nothing but steep mountains and rocks. The river is not above three French miles broad here. Now and then we could see stripes in the rock, of a fine white, loose, semiopaque spar. In some places of the river are pieces of rock as big as houses, which had rolled from the mountains in spring. The places they formerly occupied are plainly to be seen.

By way of amusement, I wrote down a few Algonkin words, which I learnt from a Jesuit who has been a long time among the Algonkins. They call water, mukuman; the head, ustigon; the heart, uta; the body, veetras; the foot, ukhita; a little boat,

* *Salicornia*, *Glaux*, *Pisum maritimum*.

† Also mentioned before.

‡ See a former passage.

§ *Tipula hortorum*. Linn.

ush; a ship, nabikoan; fire, skute; hay, maskoesee; the hare, whabus; (they have a verb, which expresses the action of hunting hares, derived from the noun) the marten, whabistanis; the elk, moofu * (but so that the final u is hardly pronounced); the reindeer, atticku; the mouse, mawitulsis. The Jesuit who told me those particulars, likewise informed me, that he had great reason to believe, that, if any Indians here owed their origin to Tataria, he thought the Algonkins certainly did; for their language is universally spoken in that part of North America which lies far to the west of Canada, towards Asia. It is said to be a very copious language; as for example, the verb to go upon the ice, is entirely different in the Algonkin from to go upon dry land, to go upon the mountains, &c.

Late at night we arrived at Terre d'Eboulement, which is twenty-two French miles from Quebec, and the last cultivated place on the western shore of the river St. Lawrence. The country lower down is said to be so mountainous that no body can live in it, there not being a single spot of ground which could be tilled. A little church, belonging to this place, stands on the shore, near the water.

No walnut-trees grow near this village, nor are there any kinds of them further north of this place. At bay St. Paul there are two or three walnut-trees of that species which the English call butter-nut-trees; but they are looked upon as great rarities, and there are no others in the neighbourhood.

Oaks of all kinds will not grow near this place, nor lower down, or further north.

Wheat is the kind of corn which is sown in the greatest quantities here. The soil is pretty fertile, and they have sometimes got twenty-four or twenty-six bushels from one, though the harvest is generally ten or twelve fold. The bread here is whiter than any where else in Canada.

They sow plenty of oats, and it succeeds better than the wheat.

They sow likewise a great quantity of peas, which yield a greater increase than any corn; and there are examples of its producing an hundred fold.

Here are but few birds; and those that pass the summer here migrate in autumn; so that there are no other birds than snow-birds, red partridges, and ravens, in winter. Even crows do not venture to expose themselves to the rigours of winter, but take flight in autumn.

The bull-frogs live in the pools of this neighbourhood. Fire-flies are likewise to be found here.

Instead of candles, they make use of lamps in country places, in which they burn train-oil of porpeffes, which is the common oil here. Where they have none of it, they supply its place with train-oil of seals.

Sept. 1st. There was a woman with child in this village, who was now in the fifty-ninth year of her age. She had not had the catamenia during eighteen years. In the year 1748, she got the small-pox, and now she was very big. She said she was very well, and could feel the motions of the foetus. She looked very well, and had her husband alive. This being an uncommon case, she was brought to the royal physician, M. Gauthier, who accompanied us on this journey.

* The famous moose-deer is accordingly nothing but an elk; for no one can deny the derivation of moose-deer from moofu. Considering especially, that before the Iroquese or Five Nations grew to that power, which they at present have all over North America, the Algonkins were then the leading nation among the Indians, and their language was of course then a most universal language over the greater part of North America; and though they have been very nearly destroyed by the Iroquese, their language is still more universal in Canada than any of the rest. F.

At half an hour after seven this morning we went down the river. The country near Terre d'Eboulement is high, and consists of hills of a loose mould, which lie in three or four rows above each other, and are all well cultivated, and mostly turned into corn-fields; though there are likewise meadows and pastures.

The great earthquake which happened in Canada, in February 1663, and which is mentioned by Charlevoix *, has done considerable damage to this place. Many hills tumbled down; and a great part of the corn-fields on the lowest hills were destroyed. They shewed me several little islands, which arose in the river on this occasion.

There are pieces of black lime-slate scattered on those hills, which consist of mould. For the space of eight French miles along the side of the river there is not a piece of lime-slate to be seen; but instead of it, there are high grey mountains, consisting of a rock-stone, which contains a purple and a chrystaline quartz, mixed with lime-stone, and black glimmer. The roots of these mountains go into the water. We now begin to see the lime-slates again.

Here are a number of terns †, which fly about, and make a noise along the shore.

The river is here computed at about four French miles broad.

On the sides of the river, about two French miles inland, there are such terraces of earth as at Terra d'Eboulement; but soon after they are succeeded by high disagreeable mountains.

Several brooks fall into the river here, over the steep shores, with a great noise. The shores are sometimes several yards high, and consists either of earth, or of rock-stone.

One of these brooks, which flows over a hill of lime-stone, contains a mineral water. It has a strong smell of sulphur, is very clear, and does not change its colour when mixed with gall-apples. If it is poured into a silver cup, it looks as if the cup was gilt; and the water leaves a sediment of a crimson colour at the bottom. The stones and pieces of wood, which lie in the water, are covered with a slime, which is a pale grey at the top, and black at the bottom of the stone. This slime has not much pungency, but tastes like oil of tobacco. My hands had a sulphureous smell all day, because I had handled some of the slimy stones.

The black lime-slate now abounds again, near the level of the water. It lies in strata, which are placed almost perpendicularly near each other, inclining a little towards W. S. W. Each stratum is between ten and fifteen inches thick. Most of them are shivered into thin leaves at the top, towards the day; but in the inside, whither neither sun, nor air and water can penetrate, they are close and compact. Some of these stones are not quite black, but have a greyish cast.

About noon we arrived at Cape aux Oyes, or Geese Cape, which has probably got its name from the number of wild geese which the French found near it, on their first arrival in Canada. At present we saw neither geese, nor any kind of birds here, a single raven excepted. Here we were to examine the renowned metallic veins in the mountain; but found nothing more than small veins of a fine white spar, containing a few specks of lead ore. Cap aux Oyes is computed twenty-two, or twenty-five French miles distant from Quebec. I was most pleased by finding, that most of the plants are the same as grow in Sweden; a proof of which I shall produce in the sequel.

The sand-reed ‡ grows in abundance in the sand, and prevents its being blown about by the wind.

* See his Histoire de la Nouvelle France, tom. ii. p. m. 125.

† Sterna hirundo, Linn.

‡ Arundo arenaria, Linn.

The sea-lime grafs * likewise abounds on the shores. Both it and the preceding plant are called *seigle de mer* † by the French. I have been assured that these plants grow in great plenty in Newfoundland, and on other North American shores; the places covered with them looking, at a distance, like corn-fields; which might explain the passage in our northern accounts, of the excellent wine-land ‡, which mentions, that they had found whole fields of wheat growing wild.

The sea-side plantain § is very frequent on the shore. The French boil its leaves in a broth on their sea-voyages, or eat them as a salad. It may likewise be pickled like samphire.

The bear-berries || grow in great abundance here. The Indians, French, English, and Dutch, in those parts of North America, which I have seen, call them *Sagackhomi*, and mix the leaves with tobacco for their use.

Gale, or sweet willow ¶, is likewise abundant here. The French call it *laurier*, and some *poivrier*. They put the leaves into their broth, to give it a pleasant taste.

The sea-rocket ** is, likewise, not uncommon. Its root is pounded, mixed with flour, and eaten here, when there is a scarcity of bread.

The forb-tree, or mountain-ash, the cranberry-bush, the juniper-tree, the sea-side pease, the *Linnæa*, and many other Swedish plants, are likewise to be met with here.

We returned to bay St. Paul to-day. A grey seal swam behind the boat for some time, but was not near enough to be shot at.

Sept. 2d. This morning we went to see the silver or lead veins. They lie a little on the south-side of the mills, belonging to the priests. The mountain in which the veins lie has the same constituent parts as the other high grey rocks in this place, viz. a rock-stone composed of a whitish or pale grey lime-stone, a purple or almost garnet-coloured quartz, and a black glimmer. The lime-stone is in greater quantities here than the other parts; and is so fine as to be hardly visible. It effervesces very strongly with aqua fortis. The purple or garnet-coloured quartz is next in quantity; lies scattered in exceeding small grains, and strikes fire when struck with a steel. The little black particles of glimmer follow next; and last of all, the transparent crystalline speckles of quartz. There are some small grains of spar in the lime-stone. All the different kinds of stone are very well mixed together, except that the glimmer now and then forms little veins and lines. The stone is very hard; but when exposed to sunshine and the open air, it changes so much as to look quite rotten, and becomes friable; and in that case, its constituent particles grow quite undistinguishable. The mountain is quite full of perpendicular cliffs, in which the veins of lead-ore run from E. S. E. to W. N. W. It seems the mountain had formerly got cracks here, which were afterwards filled up with a kind of stone, in which the lead-ore was generated. That stone which contains the lead-ore is a soft, white, often semidiaphanous spar, which works very easily. In it there are sometimes stripes of a snowy white lime-stone, and almost always veins of a green kind of stone like quartz. This spar has many cracks, and divides into such pieces as quartz; but is much softer, never strikes fire with steel,

* *Elymus arenarius*, Linn.

† Sea rye.

‡ *Vinland det goda*, or the good wine-land, is the name which the old Scandinavian navigators gave to America, which they discovered long before Columbus. See *Torfæi Historia Vinlandiæ antiquæ s. partis Americæ septentrionolis*. Hafniæ 1715, 4to. and Mr. George Westmann's, A. M. Dissertation on that subject. Abo. 1747. F.

§ *Plantago maritima*, Linn.

¶ *Myrica gale*, Linn.

|| *Arbutus uva ursi*, Linn.

** *Bunias cakile*, Linn.

does not effervesce with acids, and is not smooth to the touch. It seems to be a species of Mr. Professor Wallerius's vitrescent spar*. There are sometimes small pieces of a greyish quartz in this spar, which emit strong sparks of fire, when struck with a steel. In these kinds of stone the lead-ore is lodged. It commonly lies in little lumps of the size of peas; but sometimes in specks of an inch square, or bigger. The ore is very clear, and lies in little cubes†. It is generally very poor, a few places excepted. The veins of soft spar, and other kinds of stone, are very narrow, and commonly from ten to fifteen inches broad. In a few places they are twenty inches broad; and in one single place twenty-two and a half. The brook which intersects the mountain towards the mills, runs down so deep into the mountain, that the distance from the summit of the hill, to the bottom of the brook, is near twelve yards. Here I examined the veins, and found that they always keep the same breadth, not encreasing near the bottom of the brook; and likewise, that they are no richer below, than at the top. From hence it may be easily concluded, that it is not worth while sinking mines here. Of these veins there are three or four in this neighbourhood, at some distance from each other, but all of the same quality. The veins are almost perpendicular, sometimes deviating a little. When pieces of the green stone before-mentioned lie in the water, a great deal of the adherent white spar and lime-stone is consumed; but the green stone remains untouched. That part of the veins which is turned towards the air is always very rough, because the sun, air, and rain, have mouldered a great part of the spar and lime-stone; but the green stone has resisted their attacks. They sometimes find deep holes in these veins, filled with mountain crystals. The greatest quantity of lead or silver ore is to be found next to the rock, or even on the sides of vein. There are now and then little grains of pyrites in the spar, which have a fine gold colour. The green stone when pounded, and put on a red-hot shovel, burns with a blue flame. Some say, they can then observe a sulphureous smell, which I could never perceive, though my sense of smelling is very perfect. When this green stone is grown quite red-hot, it loses its green colour, and acquires a whitish one, but will not effervesce with aqua fortis.

The sulphureous springs (if I may so call them) are at the foot of the mountain, which contains the silver, or lead ore. Several springs join here, and form a little brook. The water in those brooks is covered with a white membrane, and leaves a white, mealy matter on the trees, and other bodies in its way; this matter has a strong sulphureous smell. Trees covered with this mealy matter, when dried and set on fire, burn with a blue flame, and emit a smell of sulphur. The water does not change by being mixed with gall-apples, nor does it change blue paper into a different colour, which is put into it. It makes no good lather with soap. Silver is tarnished, and turns black, if kept in this water for a little while. The blade of a knife was turned quite black, after it had lain about three hours in it. It has a disagreeable smell, which, they say, it spreads still more in rainy weather. A number of grasshoppers were fallen into it at present. The inhabitants used this water, as a remedy against the itch.

In the afternoon we went to see another vein, which had been spoken of as silver-ore. It lies about a quarter of a mile to the north-east of bay St. Paul, near a point of land called Cap au Corbeau, close to the shore of the river St. Lawrence. The mountain in which these veins lie, consist of a pale red vitrescent spar, a black glimmer, a pale lime-stone, purple or garnet-coloured grains of quartz, and some transparent quartz. Sometimes the reddish vitrescent spar is the most abundant, and lies in long stripes of small hard grains. Sometimes the fine black glimmer abounds more than the remaining

* See Wallerius's Mineralogy, Germ. ed. p. 87. Forst. Introd. to Mineralogy, p. 13.

† It is a cubic lead-ore, or lead-glance. Forster's Introd. to Mineralogy, p. 51.

constituent parts; and these two last kinds of stone generally run in alternate stripes. The white lime-stone which consists of almost invisible particles, is mixed in among them. The garnet-coloured quartz grains appear here and there, and sometimes form whole stripes. They are as big as pin's heads, round, shining, and strike fire with steel. All these stones are very hard, and the mountains near the sea consist entirely of them. They sometimes lie in almost perpendicular strata, of ten or fifteen inches thickness. The strata, however, point with their upper ends to the north-west, and go upwards from the river, as if the water, which is close to the south-east side of the mountains, had forced the strata to lean on that side. These mountains contain very narrow veins of a white, and sometimes of a greenish, fine, semidiaphanous, soft spar, which crumbles easily into grains. In this spar they very frequently find specks, which look like a calamine blind*. Now and then, and but very seldom, there is a grain of lead-ore. The mountains near the shore consist sometimes of a black fine-grained horn-stone, and a ferruginous lime-stone. The horn-stone in that case is always in three or four times as great a quantity as the lime-stone.

In this neighbourhood there is likewise a sulphureous spring, having exactly the same qualities as that which I have before described. The broad-leaved reed mace† grows in the very spring, and succeeds extremely well. A mountain-ash stood near it, whose berries were of a pale yellow fading colour, whereas on all other mountain-ashes they have a deep red colour.

They make great quantities of tar at bay St. Paul. We now passed near a place in which they burn tar, during summer. It is exactly the same with curs in East Bothnia, only somewhat less; though I have been told, that there are sometimes very great manufactures of it here. The tar is made solely of the pin rouge‡, or red pine. All other firs, of which here are several kinds, are not fit for this purpose, because they do not give tar enough to repay the trouble the people are at. They make use of the roots alone, which are quite full of resin, and which they dig out of the ground; and of about two yards of the stem, just above the root, laying aside all the rest. They have not yet learnt the art of drawing the resin to one side of the tree, by peeling off the bark; at least they never take this method. The tar-barrels are about half the size of ours. A ton holds forty-six pots, and sells at present for twenty-five francs at Quebec. The tar is reckoned pretty good.

The sand on the shore of the river St. Lawrence consists in some places of a kind of pearl-sand. The grains are of quartz, small and semidiaphanous. In some places, it consists of little particles of glimmer; and there are likewise spots, covered with the garnet-coloured sand, which I have before described, and which abounds in Canada.

Sept. 4th. The mountains hereabouts were covered with a very thick fog to-day, resembling the smoak of a charcoal-kiln. Many of these mountains are very high. During my stay in Canada, I asked many people, who have travelled much in North America, whether they ever met with mountains so high, that the snow never melts on them in winter; to which they always answered in the negative. They say that the snow sometimes stays on the highest, viz. on some of those between Canada and the English colonies, during a great part of the summer; but that it melts as soon as the great heat begins.

* Forster's Introd. to Mineralogy. p. 50. Zincum sterilum, Linn. Syst. Nat. iii. p. 126. ed. xii.

† Typha latifolia, Linn.

‡ Pinus foliis geminis longis; ramis triplici fasciculo foliorum terminatis, conis ovatis lævibus. Flor. Canad.

Every countryman sows as much flax as he wants for his own use. They had already taken it up some time ago, and spread it on the fields, meadows, and pastures, in order to bleach it. It was very short this year in Canada.

They find iron-ore in several places hereabouts. Almost a Swedish mile from bay St. Paul, up in the country, there is a whole mountain full of iron-ore. The country round it is covered with a thick forest, and has many rivulets of different sizes, which seem to make the erection of iron-works very easy here. But the government having as yet suffered very much by the iron-works at Trois Rivières, nobody ventures to propose any thing further in that way.

Sept. 5th. Early this morning we set out on our return to Quebec. We continued our journey at noon, notwithstanding the heavy rain and thunder incommoded us. At that time we were just at Petite Rivière, and the tide beginning to ebb, it was impossible for us to come up against it; therefore we lay by here, and went on shore.

Petite Rivière is a little village on the western side of the river St. Lawrence, and lies on a little rivulet, from whence it takes its name. The houses are built of stone, and are dispersed over the country. Here is likewise a fine little church of stone. To the west of the village are some very high mountains, which cause the sun to set three or four hours sooner here than ordinary. The river St. Lawrence annually cuts off a piece of land, on the east side of the village, so that the inhabitants fear they will in a short time lose all the land they possess here, which at most is but a musket shot broad. All the houses here are very full of children.

The lime-flates on the hills are of two kinds. One is a black one, which I have often mentioned, and on which the town of Quebec is built. The other is generally black, and sometimes dark grey, and seems to be a species of the former. It is called *pierre à chaux* here. It is chiefly distinguished from the former, by being cut very easily, giving a very white lime when burnt, and not easily mouldering into shivers in the air. The walls of the houses here are entirely made of this flate; and likewise the chimnies, those places excepted which are exposed to the greatest fire, where they place pieces of grey rock-stone, mixed with a deal of glimmer. The mountains near Petite Rivière consist merely of a grey rock-stone, which is entirely the same with that which I described near the lead-mines of bay St. Paul. The foot of these mountains consists of one of the lime-flate kinds. A great part of the Canada mountains of grey rock-stone stand on a kind of flate, in the same manner as the grey rocks of West Gothland in Sweden.

Sept. 6th. They catch eels and porpesses here, at a certain season of the year, viz. at the end of September, and during the whole month of October. The eels come up the river at that time, and are caught in the manner I have before described. They are followed by the porpesses, which feed upon them. The greater the quantity of eels is, the greater is likewise the number of porpesses, which are caught in the following manner: when the tide ebbs in the river, the porpesses commonly go down along the sides of the river, catching the eels which they find there. The inhabitants of this place therefore stick little twigs, or branches with leaves, into the river, in a curve line or arch, the ends of which look towards the shore, but stand at some distance from it, leaving a passage there. The branches stand about two feet distant from each other. When the porpesses come amongst them, and perceive the rustling the water makes with the leaves, they dare not venture to proceed, fearing lest there should be a snare, or trap, and endeavour to go back. Meanwhile the water has receded so much, that in going back they light upon one of the ends of the arch, whose moving leaves frighten them again. In this confusion they swim backwards and forwards, till the water is entirely

entirely ebb'd off, and they lie on the bottom, where the inhabitants kill them. They give a great quantity of train-oil.

Near the shore, is a grey clay, full of ferruginous cracks, and pierced by worms. The holes are small, perpendicular, and big enough to admit a middling pin. Their sides are likewise ferruginous, and half-petrified; and where the clay has been washed away by the water, the rest looks like ochre-coloured stumps of tobacco-pipe tubes.

At noon we left Petite Riviere, and continued our journey towards St. Joachim.

Between Petite Riviere, which lies in a little bay, and St. Joachim, the western shore of the river St. Lawrence consists of prominent mountains, between which there are several small bays. They have found, by long experience, that there is always a wind on these mountains, even when it is calm at Petite Riviere. And when the wind is pretty high at the last-mentioned place, it is not adviseable to go to Quebec in a boat, the wind and waves, in that case, being very high near these mountains. We had at present an opportunity of experiencing it. In the creeks between the mountains, the water was almost quite smooth; but on our coming near one of the points formed by the high mountains, the waves encreased, and the wind was so high, that two people were forced to take care of the helm, and the mast broke several times. The waves are likewise greatly encreased by the strong current near those points or capes.

Sept. 7th. A little before noon, we continued our voyage from St. Joachim.

They employ tree-mushrooms very frequently instead of tinder. Those which are taken from the sugar-maple are reckoned the best; those of the red maple are next in goodness; and next to them, those of the sugar-birch. For want of these, they likewise make use of those which grow on the asp-tree or tremble.

There are no other ever-green trees in this part of Canada than the thuya, the yew, and some of the fir kind.

The thuya is esteemed for resisting putrefaction much longer than any other wood; and next in goodness to it is the pine, called perusse here.

They make cheese in several places hereabouts. That of the isle of Orleans is, however, reckoned the best. This kind is small, thin, and round; and four of them weigh about a French pound. Twelve of them sell for thirty sols. A pound of salt butter costs ten sols at Quebec, and of fresh butter fifteen sols. Formerly, they could get a pound of butter for four sols here.

The corn-fields towards the river are sloping; they are suffered to lie fallow and to be sown alternately. The sown ones looked yellow at this distance, and the fallow ones green. The weeds are left on the latter all summer, for the cattle to feed upon.

The ash wood furnishes the best hoops for tuns here; and for want of it, they take the thuya, little birch-trees, wild cherry-trees, and others.

The hills near the river, on the western side, opposite the isle of Orleans, are very high and pretty steep. They consist, in most part, of black lime-slate. There are likewise some spots which consist of a rock-stone, which, at first sight, looks like a sand-stone, and is composed of grey quartz, a reddish lime-stone, a little grey lime-stone, and some pale grey grains of sand. These parts of the stone are small and pretty equally mixed with each other. The stone looks red, with a greyish cast, and is very hard. It lies in strata, one above another. The thickness of each stratum is about five inches. It is remarkable, that there are both elevated and hollow impressions of pectinites on the surface, where one likewise meets with the petrified shells themselves; but on breaking the stone, it does not even contain the least vestige of an impression or

petrified shell. All the impressions are small, about the length and breadth of an inch. The particulars of quartz in the stone strike fire with steel, and the particulars of lime-stone effervesce strongly with aquafortis. The upper and lower surfaces of the strata consist of lime-stone, and the inner parts of quartz. They break great quantities of this stone in order to build houses of it, pave floors with it, and make stair-cases of it. Great quantities of it are sent to Quebec. It is remarkable, that there are petrifications in this stone, but never any in the black lime-slates.

The women dye their woollen yarn yellow with seeds of gale*, which is called poivrier here, and grows abundant in wet places.

This evening, M. Gauthier and I went to see the water-fall at Montmorenci. The country near the river is high and level, and laid out into meadows. Above them the high and steep hills begin, which are covered with a crust of mould, and turned into corn-fields. In some very steep places, and near the rivulets, the hills consist of mere black lime-slate, which is often crumbled into small pieces, like earth. All the fields below the hills are full of such pieces of lime-slate. In some more elevated places, the earth consists of a pale red colour; and the lime-slates are likewise reddish.

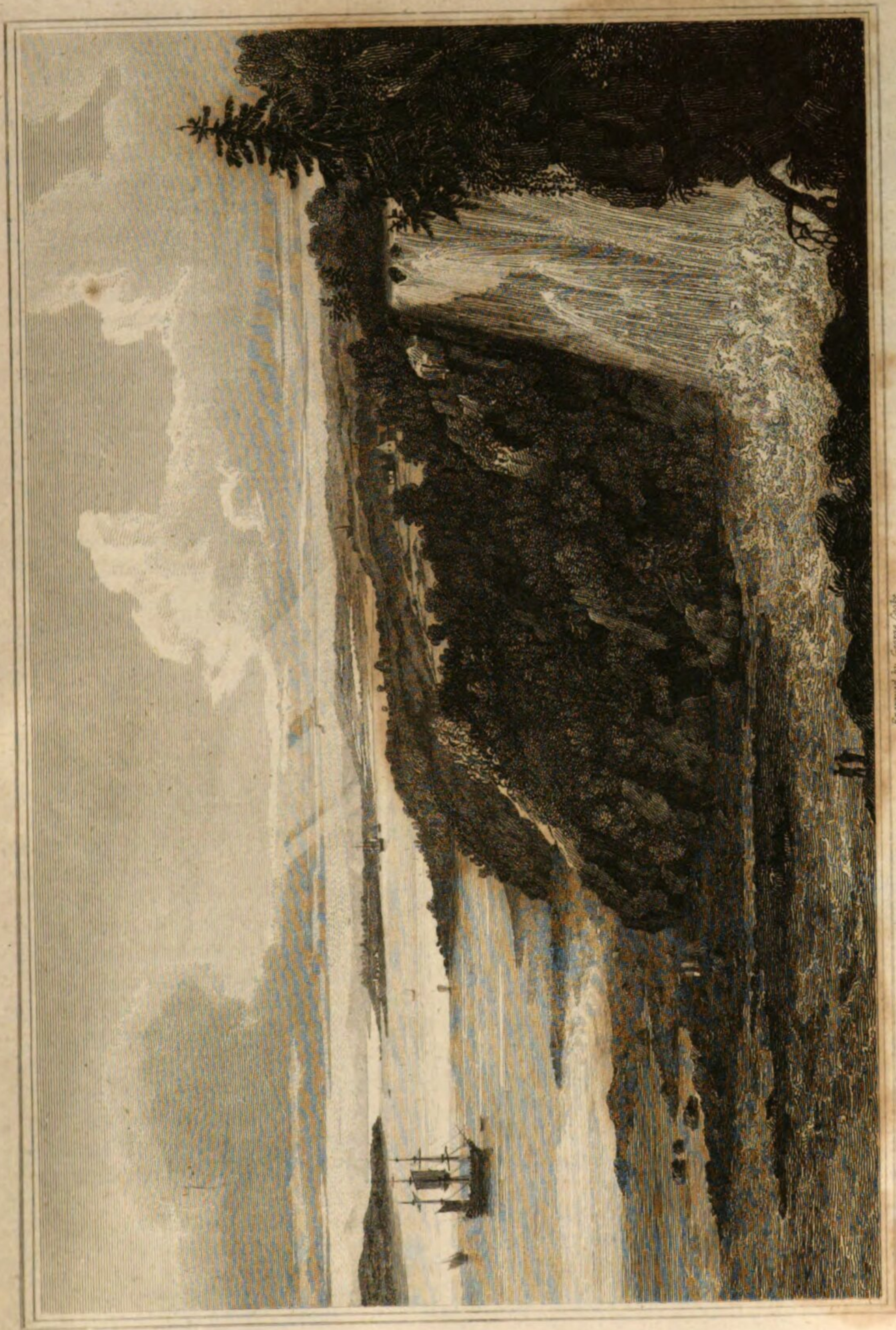
The water-fall near Montmorenci is one of the highest I ever saw. It is in a river whose breadth is not very considerable, and falls over the steep side of a hill, consisting entirely of black lime-slate. The fall is now at the bottom of a little creek of the river. Both sides of the creek consist merely of black lime-slate, which is very much cracked and tumbled down. The hill of lime-slate under the water-fall is quite perpendicular, and one cannot look at it without astonishment. The rain of the preceding days had increased the water in the river, which gave the fall a grander appearance. The breadth of the fall is not above ten or twelve yards. Its perpendicular height Mr. Gauthier and I guessed to be between a hundred and ten, and a hundred and twenty feet; and on our return to Quebec, we found our guess confirmed by several gentlemen, who had actually measured the fall, and found it to be nearly as we had conjectured. The people who live in the neighbourhood exaggerate in their accounts of it, absolutely declaring that it is three hundred feet high. Father Charlevoix† is too sparing, in giving it only forty feet in height. At the bottom of the fall there is always a thick fog of vapours spreading about the water, being resolved into them by its violent fall. This fog occasions almost perpetual rain here, which is more or less heavy, in proportion to its distance from the fall. Mr. Gauthier and myself, together with the man who shewed us the way, were willing to come nearer to the falling water, in order to examine more accurately how it came down from such a height, and how the stone behind the water looked. But, being about twelve yards off the fall, a sudden gust of wind blew a thick fog upon us, which, in less than a minute, had wet us as thoroughly as if we had walked for half an hour in a heavy shower. We therefore hurried away as fast as we could. The noise of the fall is sometimes heard at Quebec, which is two French miles off to the southward; and this is a sign of a north-east wind. At other times, it can be well heard in the villages, a good way lower to the north; and it is then reckoned an undoubted sign of a south-west wind, or of rain. The black lime-slate on the sides of the fall lies in dipping, and almost perpendicular strata. In these lime-slate strata are the following kinds of stone to be met with.

Fibrous gypsum‡. This lies in very thin leaves between the cracks of the lime-slate.

* Myrica gale. Linn.

† See his Histoire de la Nouv. France, tom. v. p. m. 100.

‡ Gypsum amiantiforme, Waller. Min. Germ. ed. p. 74. Fibrous or radiated gypsum, Forst. Introd. to Mineralogy, p. 16.



Engraved by George Cooke.

Fall of Montmorency.

London: Published by Longman, Hurst, Ross, Orme & Brown, Paternoster Row, Sept. 1. 1812.

Its colour is a snowy white. I have found it in several parts of Canada, in the same black lime-stone.

Pierre à calumet. This is the French name of a stone disposed in strata between the lime-slate, and of which they make almost all the tobacco-pipe heads in the country. The thickness of the strata is different. I have seen pieces near fifteen inches thick; but they are commonly between four and five inches thick. When the stone is long exposed to the open air or heat of the sun, it gets a yellow colour; but in the inside it is grey. It is a lime-stone of such a compactness, that its particles are not distinguishable by the naked eye. It is pretty soft, and will bear cutting with a knife. From this quality, the people likewise judge of the goodness of the stone for tobacco-pipe heads; for the hard pieces of it are not so fit for use as the softer ones. I have seen some of these stones shivering into thin leaves on the outside, where they were exposed to the sun. All the tobacco-pipe heads, which the common people in Canada make use of, are made of this stone, and are ornamented in different ways. A great part of the gentry likewise make use of them, especially when they are on a journey. The Indians have employed this stone for the same purposes for several ages past, and have taught it the Europeans. The heads of the tobacco-pipes are naturally of a pale grey colour; but they are blackened whilst they are quite new, to make them look better. They cover the head all over with grease, and hold it over a burning candle, or any other fire, by which means it gets a good black colour, which is increased by frequent use. The tubes of the pipes are always made of wood*.

There are no coals near this fall, or in the steep hills close to it. However, the people in the neighbouring village shewed me a piece of coal, which, they said, they had found on one of the hills about the fall.

We arrived at Quebec very late at night.

Sept. 8. Intermitting fevers of all kinds are very rare at Quebec, as Mr. Gauthier affirms. On the contrary, they are very common near Fort St. Frederick, and near Fort Detroit, which is a French colony, between Lake Erie and Lake Huron, in forty-three degrees north latitude.

Some of the people of quality make use of ice-cellars, to keep beer cool in, during summer, and to keep fresh flesh, which would not keep long in the great heat. These ice-cellars are commonly built of stone, under the house. The walls of it are covered with boards, because the ice is more easily consumed by stones. In winter they fill it with snow, which is beat down with the feet, and covered with water. They then open the cellar holes and the door, to admit the cold. It is customary in summer to put a piece of ice into the water or wine which is to be drank.

All the salt which is made use of here is imported from France. They can make good salt here of the sea water; but France keeping the salt trade entirely to itself, they do not go on with it here.

The Esquimaux are a particular kind of American savages, who live only near the water, and never far in the country, on Terra Labrador, between the most outward point of the mouth of the river St. Lawrence and Hudson's bay. I have never had an opportunity of seeing one of them. I have spoken with many Frenchmen who have seen

* All over Poland, Russia, Turkey, and Tartary, they smoke out of pipes made of a kind of stone-marle, to which they fix long wooden tubes; for which latter purpose, they commonly employ the young shoots of the various kinds of spiræa, which have a kind of pith easily to be thrust out. The stone-marle is called generally sea-scum, being pretty soft; and by the Tartars, in Crimea, it is called keffekil. And as it cuts so easily, various figures are curiously carved in it, when it is worked into pipe heads, which often are mounted with silver. F.

them, and had them on board their own vessels. I shall here give a brief history of them, according to their unanimous accounts.

The Esquimaux are entirely different from the Indians of North America, in regard to their complexion and their language. They are almost as white as Europeans, and have little eyes: the men have likewise beards. The Indians, on the contrary, are copper-coloured, and the men have no beards. The Esquimaux language is said to contain some European words*. Their houses are either caverns or clefts in the mountains, or huts of turf above ground. They never sow or plant vegetables, living chiefly on various kinds of whales, on seals†, and walrusses‡. Sometimes they likewise catch land animals, on which they feed. They eat most of their meat quite raw. Their drink is water; and people have likewise seen them drinking the sea-water, which was like brine.

Their shoes, stockings, breeches, and jackets, are made of seal-skins well prepared, and sewed together with nerves of whales, which may be twisted like threads, and are very tough. Their cloaths, the hairy side of which is turned outwards, are sewed together so well, that they can go up to their shoulders in the water without wetting their under cloaths. Under their upper cloaths, they wear shirts and waistcoats made of seals skins, prepared so well as to be quite soft. I saw one of their women's dresses; a cap, a waistcoat, and coat, made all of one piece of seal's skin well prepared, soft to the touch, and the hair on the outside. There is a long train behind at their coats, which scarce reach them to the middle of the thigh before; under it they wear breeches and boots, all of one piece. The shirt I saw was likewise made of a very soft seal's skin. The Esquimaux women are said to be handsomer than any of the American Indian women, and their husbands are accordingly more jealous in proportion.

I have likewise seen an Esquimaux boat. The outside of it consists entirely of skins, the hair of which has been taken off; and the sides of the skins on which they were inserted are turned outwards, and feel as smooth as vellum. The boat was near fourteen feet long, but very narrow, and very sharp-pointed at the extremities. In the inside of the boat they place two or three thin boards, which give a kind of form to the boat. It is quite covered with skins at the top, excepting, near one end, a hole big enough for a single person to sit and row in, and keep his thighs and legs under the deck. The figure of the hole resembles a semi-circle, the base or diameter of which is turned towards the larger end of the boat. The hole is surrounded with wood, on which a soft folded skin is fastened with straps at its upper end. When the Esquimaux makes use of his boat, he puts his legs and thighs under the deck, sits down at the bottom of the boat, draws the skin before-mentioned round his body, and fastens it well with the straps; the waves may then beat over his boat with considerable violence, and not a single drop comes into it; the cloaths of the Esquimaux keep the wet from him. He has an oar in his hand, which has a paddle at each end; it serves him for rowing with, and keeping the boat in equilibrium during a storm. The paddles of the

* The Moravian brethren in Greenland, coming once over with some Greenlanders to Terra Labrador, the Esquimaux ran away at their appearance; but they ordered one of their Greenlanders to call them back in his language. The Esquimaux hearing his voice, and understanding the language, immediately stopped, came back, and were glad to find a countryman, and wherever they went among the other Esquimaux, they gave out that one of their brethren was returned. This proves the Esquimaux to be of a tribe different from any European nation, as the Greenland language has no similarity with any language in Europe. F.

† *Phoca vitulina*. Linn.

‡ *Trichechus rosmarus*. Linn.

oar are very narrow. The boat will contain but a single person. Esquimaux have often been found safe in their boats many miles from land, in violent storms, where ships found it difficult to save themselves. Their boats float on the waves like bladders, and they row them with incredible velocity. I am told they have boats of different shapes. They have likewise larger boats of wood, covered with leather, in which several people may sit, and in which their women commonly go to sea.

Bows and arrows, javelins and harpoons, are their arms. With the last they kill whales, and other large marine animals. The points of their arrows and harpoons are sometimes made of iron, sometimes of bone, and sometimes of the teeth of the walrus. Their quivers are made of seals skins. The needles with which they sew their cloaths are likewise made of iron, or of bone. All their iron they get, by some means or other, from the Europeans.

They sometimes go on board the European ships, in order to exchange some of their goods for knives and other iron. But it is not adviseable for Europeans to go on shore, unless they be numerous; for the Esquimaux are false and treacherous, and cannot suffer strangers amongst them. If they find themselves too weak, they run away at the approach of strangers; but if they think they are an over-match for them, they kill all that come in their way, without leaving a single one alive. The Europeans therefore, do not venture to let a greater number of Esquimaux come on board their ships than they can easily master. If they are ship-wrecked on the Esquimaux coasts, they may as well be drowned in the sea as come safe to the shore: this many Europeans have experienced. The European boats and ships which the Esquimaux get into their power, are immediately cut in pieces, and robbed of all nails and other iron, which they work into knives, needles, arrow-heads, &c. They make use of fire for no other purposes but working of iron, and preparing the skins of animals. Their meat is eaten all raw. When they come on board an European ship, and are offered some of the sailors meat, they never will taste of it till they have seen some Europeans eat it. Though nothing pleased other savage nations so much as brandy, yet many Frenchmen have assured me, that they never could prevail on the Esquimaux to take a dram of it. Their mistrust of other nations is the cause of it; for they undoubtedly imagine that they are going to poison them, or do them some hurt; and I am not certain whether they do not judge right. They have no ear-rings, and do not paint the face like the American Indians. For many centuries past they have had dogs whose ears are erected, and never hang down. They make use of them for hunting, and instead of horses in winter, for drawing their goods on the ice. They themselves sometimes ride in sledges drawn by dogs. They have no other domestic animal. There are indeed plenty of rein-deer in their country; but it is not known that either the Esquimaux, or any of the Indians in America, have ever tamed them. The French in Canada, who are in a manner the neighbours of the Esquimaux, have taken a deal of pains to carry on some kind of trade with them, and to endeavour to engage them to a more friendly intercourse with other nations. For that purpose they took some Esquimaux children, taught them to read, and educated them in the best manner possible. The intention of the French was, to send these children to the Esquimaux again, that they might inform them of the kind treatment the French had given them, and thereby incline them to conceive a better opinion of the French. But unhappily all the children died of the small-pox, and the scheme was dropt. Many persons in Canada doubted whether the scheme would have succeeded, though the children had been kept alive. For they say, there was formerly an Esquimaux taken by the French and brought to Canada, where he staid a good while, and was treated with great civility.

civility. He learnt French pretty well, and seemed to relish the French way of living very well. When he was sent back to his countrymen, he was not able to make the least impression on them, in favour of the French; but was killed by his nearest relations, as half a Frenchman and foreigner. This inhuman proceeding of the Esquimaux against all strangers, is the reason why none of the Indians of North America ever give quarter to the Esquimaux if they meet with them, but kill them on the spot; though they frequently pardon their other enemies, and incorporate the prisoners into their nation.

For the use of those who are fond of comparing the languages of several nations, I have here inserted a few Esquimaux words, communicated to me by the Jesuit Saint Pie. One, kombuc; two, tigel; three, ké; four, missilagat; water, fillalokto; rain, killaluck; heaven, taktuck, or nabugakshe; the sun, shikonak, or fakaknuk; the moon, takock; an egg, manneguk; the boat, kagack; the oar, pacotick; the knife, shavié; a dog, mekké, or timilok; the bow, petikfick; an arrow, katso; the head, niakock; the ear, tchiu; the eye, killik, or shik; the hair, nutshad; a tooth, ukak; the foot, itikat. Some think that they are nearly the same nation with the Greenlanders, or Skralingers; and pretend that there is a great affinity in the language*.

Plumb-trees of different sorts brought over from France, succeed very well here. The present year they did not begin to flower till this month. Some of them looked very well; and I am told the winter does not hurt them.

Sept. 11th. The Marquis de la Galissonniere is one of the three noblemen, who, above all others, have gained high esteem with the French admiralty in the last war. They are the Marquisses de la Galissonniere, de la Jonquiere, and de l'Etendue. The first of these was of a low stature, and somewhat hump-backed. He has a surprising knowledge in all branches of science, and especially in natural history; in which he is so well versed, that when he began to speak with me about it, I imagined I saw our great Linnæus under a new form. When he spoke of the use of natural history, of the method of learning, and employing it to raise the state of a country, I was astonished to see him take his reasons from politics, as well as natural philosophy, mathematics, and other sciences. I own, that my conversation with this nobleman was very instructive to me; and I always drew a deal of useful knowledge from it. He told me several ways of employing natural history to the purposes of politics, and to make a country powerful, in order to depress its envious neighbours. Never has natural history had a greater promoter in this country; and it is very doubtful whether it will ever have his equal here. As soon as he got the place of governor-general, he began to take those measures for getting information in natural history, which I have mentioned before. When he saw people who had for some time been in a settled place of the country, especially in the more remote parts, or had travelled in those parts, he always questioned them about the trees, plants, earths, stones, ores, animals, &c. of the place. He likewise enquired what use the inhabitants made of these things; in what state their husbandry was; what lakes, rivers, and passages there are; and a number of other particulars. Those who seemed to have clearer notions than the rest, were obliged to give him circumstantial descriptions of what they had seen. He

* The above account of the Esquimaux may be compared with Henry Ellis's Account of a Voyage to Hudson's Bay, by the Dobbs Galley and California, &c., and the account of a Voyage for the Discovery of a North-west Passage by Hudson's Straights, by the Clerk of the California. Two Vols. 8vo. And lastly, with Crantz's History of Greenland. Two Vols. 8vo. F.

himself wrote down all the accounts he had received ; and by this great application, so uncommon among persons of his rank, he soon acquired a knowledge of the most distant parts of America. The priests, commandants of forts, and of several distant places, are often surprised by his questions, and wonder at his knowledge, when they come to Quebec to pay their visits to him ; for he often tells them, that near such a mountain, or on such a shore, &c. where they often went a hunting, there are some particular plants, trees, earths, ores, &c. for he had got a knowledge of those things before. From hence it happened, that some of the inhabitants believed he had a preternatural knowledge of things, as he was able to mention all the curiosities of places, sometimes near two hundred Swedish miles from Quebec, though he never was there himself. Never was there a better statesman than he ; and nobody can take better measures, and choose more proper means for improving a country, and increasing its welfare. Canada was hardly acquainted with the treasure it possessed in the person of this nobleman, when it lost him again ; the king wanted his services at home, and could not leave him so far off. He was going to France with a collection of natural curiosities ; and a quantity of young trees and plants, in boxes full of earth.

The black lime-slate has been repeatedly mentioned during the course of my journey. I will here give a more minute detail of it. The mountain on which Quebec is built, and the hills along the river St. Lawrence, consist of it for some miles together, on both sides of Quebec. About a yard from the surface, this stone is quite compact, and without any cracks ; so that one cannot perceive that it is a slate, its particles being imperceptible. It lies in strata, which vary from three or four inches, to twenty thick, and upwards. In the mountains on which Quebec is built, the strata do not lie horizontal, but dipping, so as to be nearly perpendicular ; the upper ends pointing north-west, and the lower ones south-east. From hence it is, the corners of these strata always strike out at the surface into the streets, and cut the shoes in pieces. I have likewise seen some strata, inclining to the northward, but nearly perpendicular as the former. Horizontal strata, or nearly such, have occurred to me too. The strata are divided by narrow cracks, which are commonly filled with fibrous white gypsum, which can sometimes be got loose with a knife, if the layer or stratum of slate above it is broken in pieces ; and in that case it has the appearance of a thin white leaf. The large cracks are almost filled up with transparent quartz crystals, of different sizes. One part of the mountain contains vast quantities of these crystals, from which the corner of the mountain which lies to the S. S. E. of the palace, has got the name of *Pointe de Diamante*, or *Diamond Point*. The small cracks which divide the stone, go generally at right angles ; the distances between them are not always equal. The outside of the stratum, or that which is turned towards the other stratum, is frequently covered with a fine, black, shining membrane, which looks like a kind of a pyrous horn-stone. In it there is sometimes a yellow pyrites, always lying in small grains. I never found petrifications or impressions, or other kinds of stone in it, besides those I have just mentioned. Almost all the public and private buildings at Quebec consist of this lime-slate ; and likewise the walls round the town, and round the monasteries and gardens. It is easily broken, and cut to the size wanted. But it has the property of splitting into thin shivers, parallel to the surface of the stratum from whence they are taken, after lying during one or more years in the air, and exposed to the sun. However, this quality does no damage to the walls in which they are placed ; for the stones being laid on purpose into such a position that the cracks always run horizontally, the upper stones press so much upon the lower ones, that they can only get cracks out-

wardly, and shiver only on the outside, without going further inwards. The shivers always grow thinner, as the houses grow older.

In order to give my readers some idea of the climate of Quebec, and of the different changes of heat and cold, at the several seasons of the year, I will here insert some particulars extracted from the meteorological observations, of the royal physician, Mr. Gaultier: he gave me a copy of those which he had made from October 1744, to the end of September 1746. The thermometrical observations I will omit, because I do not think them accurate; for as Mr. Gaultier made use of de la Hire's thermometer, the degrees of cold cannot be exactly determined, the quicksilver being depressed into the globe at the bottom, as soon as the cold begins to be considerable. The observations are made throughout the year, between seven and eight in the morning, and two and three in the afternoon. He has seldom made any observations in the afternoon. His thermometer was likewise inaccurate, by being placed in a bad situation.

The year 1745. Jan. The 29th of this month the river St. Lawrence was covered over with ice, near Quebec. In the observations of other years, it is observed, that the river is sometimes covered with ice in the beginning of January, or the end of December.

Feb. Nothing remarkable happened during the course of this month.

March. They say this has been the mildest winter they ever felt; even the eldest persons could not remember one so mild. The snow was only two feet deep, and the ice in the river, opposite Quebec, had the same thickness. On the twenty-first there was a thunder-storm, which fell upon a soldier, and hurt him very much. On the 19th and 20th, they began to make incisions into the sugar-maple, and to prepare sugar from its juice.

April. During this month they continued to extract the juice of the sugar-maple, for making sugar. On the 7th the gardeners began to make hot-beds. On the 20th the ice in the river broke loose near Quebec, and went down; which rarely happens so soon; for the river St. Lawrence is sometimes covered with ice opposite Quebec, on the 10th of May. On the 22d, and 23d, there fell a quantity of snow. On the 25th they began to sow near St. Joachim. The same day they saw some swallows. The 29th they sowed corn all over the country. Ever since the 23d the river had been clear at Quebec.

May. The third of this month the cold was so great in the morning, that Celsius's or the Swedish thermometer, was four degrees below the freezing point; however, it did not hurt the corn. On the 16th all the summer-corn was sown. On the 5th the sanguinaria, narcissus, and violet, began to blow. The 17th the wild cherry-trees, raspberry-bushes, apple-trees, and lime-trees, began to expand their leaves. The strawberries were in flower about that time. The 29th the wild cherry-trees were in blossom. On the 26th part of the French apple-trees, cherry-trees, and plum-trees, opened their flowers.

June. The 5th of this month all the trees had got leaves. The apple-trees were in full flower. Ripe straw-berries were to be had on the 22d. Here it is noted, that the weather was very fine for the growth of vegetables.

July. The corn began to shoot into ears on the 12th, and had ears every where on the 21st. (It is to be observed, that they sow nothing but summer-corn here) Soon after the corn began to flower. Hay-making began the 22d. All this month the weather was excellent.

Aug. On the 12th there were ripe pears and melons at Montreal. On the 20th the corn was ripe round Montreal, and the harvest was begun there. On the 22d the harvest

harvest began at Quebec. On the 30th and 31st there was a very small hoar-frost on the ground.

Sept. The harvest of all kinds of corn ended on the 24th and 25th. Melons, water-melons, cucumbers, and fine plums, were very plentiful during the course of this month. Apples and pears were likewise ripe, which is not always the case. On the last days of this month they began to plough the land. The following is one of the observations of this month: "The old people in this country say, that the corn was formerly never ripe till the 15th or 16th of September, and sometimes on the 12th; but no sooner. They likewise assert, that it never was perfectly ripe. But since the woods have been sufficiently cleared, the beams of the sun have had more room to operate, and the corn ripens sooner than before*." It is further remarked, that the hot summers are always very fruitful in Canada, and that most of the corn has hardly ever arrived at perfect maturity.

Oct. During this month the fields were ploughed, and the weather was very fine all the time. There was a little frost for several nights, and on the 28th it snowed. Towards the end of this month the trees began to shed their leaves.

Nov. They continued to plough till the 10th of this month, when the trees had shed all their leaves. Till the 18th the cattle went out of doors, a few days excepted, when bad weather had kept them at home. On the 16th there was some thunder and lightning. There was not yet any ice in the river St. Lawrence on the 24th.

Dec. During this month it is observed, that the autumn has been much milder than usual. On the 1st a ship could still set sail for France; but on the 16th the river St. Lawrence was covered with ice on the sides, but open in the middle. In the river Charles the ice was thick enough for horses with heavy loads to pass over it. On the 26th the ice in the river St. Lawrence was washed away by a heavy rain; but on the 28th part of that river was again covered with ice.

The next observations shew, that the winter has likewise been one of the mildest. I now resume the account of my own journey.

* It is not only the clearing of woods, but cultivation, and population, that alter the climate of a country, and make it mild. The Romans looked upon the winters of Germany and England as very severe, but happily both countries have at present a much more mild climate than formerly, owing to the three above-mentioned reasons. Near Petersburg, under sixty degrees north latitude, the river Neva was covered with ice 1765, in the beginning of December and cleared of it April the 11th 1766. At Tzaritsin, which is under forty-eight degrees forty minutes north latitude, the river Volga was covered with ice the 26th of November 1765, and the ice broke in the river April the 27th 1766, (all old stile). Is it not almost incredible, that in a place very near twelve degrees more to the south, the effects of cold should be felt longer, and more severely, than in the more northern climate? And though the neighbourhood of Petersburg has a great many woods, the cold was, however, less severe, and lasting; Tzaritsin, on the contrary, has no woods for many hundred miles in its neighbourhood, if we except some few trees and bushes along the Volga, and its isles, and the low land along it. Wherever the eye looks to the east, there are vast plains without woods, for many hundred miles. The clearing a country of woods, cannot therefore alone contribute so much to make the climate milder. But cultivation does more. On a ploughed field the snow will always sooner melt, than on a field covered with grass. The inflammable warm particles brought into the field, by the various kinds of manure, contribute much to soften the rigours of the climate; but the exhalations of thousands of men and cattle, in a populous country, the burning of so many combustibles, and the dispersion of so many caustic particles, through the whole atmosphere; these are things which contribute so much towards softening the rigours of a climate. In a hundred square miles near Tzaritsin, there is not so much cultivated land as there is within ten near Petersburg; it is in proportion to the number of the inhabitants of both places, and this makes the chief difference of the climate. There is still another consideration, Petersburg lies near the sea, and Tzaritsin in an inland country; and, generally speaking, countries near the sea have been observed to enjoy a milder climate. These few remarks will be, I believe, sufficient to enable every body to judge of the changes of the climate in various countries, which, no doubt, grow warmer and more temperate, as cultivation and population increase. F.

This evening I left Quebec with a fair wind. The governor-general of Canada, the marquis de la Jonquiere, ordered one of the King's boats, and seven men, to bring me to Montreal. The middle of the boat was covered with blue cloth, under which we were secured from the rain. This journey I made at the expence of the French King. We went three French miles to-day.

Sept. 12. We continued our journey during all this day.

The small kind of maize, which ripens in three months time, was ripe about this time, and the people drew it out of the ground, and hung it up to dry.

The weather about this time was like the beginning of our August, old stile. Therefore it seems autumn commences a whole month later in Canada, than in the midst of Sweden.

Near each farm there is a kitchen-garden, in which onions are most abundant; because the French farmers eat their dinners of them with bread, on Fridays and Saturdays, or fasting days. However, I cannot say, the French are strict observers of fasting; for several of my rowers ate flesh to-day, though it was Friday. The common people in Canada may be smelled when one passes by them, on account of their frequent use of onions. Pumpions are likewise abundant in the farmers gardens. They dress them in several ways, but the most common is to cut them through the middle, and place the inside of the hearth, towards the fire, till it is quite roasted. The pulp is then cut out of the peel, and eaten; people above the vulgar put sugar to it. Carrots, sallad, French beans, cucumbers, and currant shrubs, are planted in every farmer's little kitchen-garden.

Every farmer plants a quantity of tobacco near his house, in proportion to the size of his family. It is likewise very necessary that they should plant tobacco, because it is so universally smoked by the common people. Boys of ten or twelve years of age run about with the pipe in their mouths, as well as the old people. Persons above the vulgar do not refuse to smoke a pipe now and then. In the northern parts of Canada, they generally smoke tobacco by itself; but further upwards, and about Montreal, they take the inner bark of the red Cornelian cherry*, crush it, and mix it with the tobacco, to make it weaker. People of both sexes, and of all ranks, use snuff very much. Almost all the tobacco which is consumed here is the produce of the country, and some people prefer it even to Virginian tobacco: but those who pretend to be connoisseurs, reckon the last kind better than the other.

Though many nations imitate the French customs; yet I observed, on the contrary, that the French in Canada, in many respects, follow the customs of the Indians, with whom they converse every day. They make use of the tobacco-pipes, shoes, garters, and girdles, of the Indians. They follow the Indian way of making war with exactness; they mix the same things with tobacco; they make use of the Indian bark-boats, and row them in the Indian way; they wrap square pieces of cloth round their feet instead of Sockings, and have adopted many other Indian fashions. When one comes into the house of a Canada peasant, or farmer, he gets up, takes his hat off to the stranger, desires him to sit down, puts his hat on, and sits down again. The gentlemen and ladies, as well as the poorest peasants and their wives, are called monsieur and madame. The peasants, and especially their wives, wear shoes, which consist of a piece of wood hollowed out, and are made almost as slippers. Their boys, and the old peasants themselves, wear their hair behind in a cue; and most of them wear red woollen caps at home, and sometimes on their journies.

* *Cornus sanguinea*. Linn.

The farmers prepare most of their dishes of milk. Butter is but seldom seen, and what they have is made of sour cream, and therefore not so good as English butter. Many of the French are very fond of milk, which they eat chiefly on fasting days. However, they have not so many methods of preparing it as we have in Sweden. The common way was to boil it, and put bits of bread, and a good deal of sugar, into it. The French here eat near as much flesh as the English, on those days when their religion allows it; for excepting the soup, the fallads, and the desert, all their other dishes consist of flesh variously prepared.

At night we lay at a farm-house, near a river called Petite Riviere, which falls here into the river St. Lawrence. This place is reckoned sixteen French miles from Quebec, and ten from Trois Rivières. The tide is still considerable here. Here is the last place where the hills, along the river, consist of black lime-slate; further on they are composed merely of earth.

Fire-flies flew about the woods at night, though not in great numbers; the French call them mouches à feu.

The houses in this neighbourhood are all made of wood; the rooms are pretty large. The inner roof rests on two, three, or four large thick spars, according to the size of the room. The chinks are filled with clay instead of moss. The windows are made entirely of paper. The chimney is erected in the middle of the room; that part of the room which is opposite the fire, is the kitchen; that which is behind the chimney, serves the people to sleep, and receive strangers in. Sometimes there is an iron stove behind the chimney.

Sept. 13th. Near Champlain, which is a place about five French miles from Trois Rivières, the steep hills near the river consist of a yellow, and sometimes ochre-coloured sandy earth, in which a number of small springs arise. The water in them is generally filled with yellow ochre, which is a sign that these dry sandy fields contain a great quantity of the same iron ore which is dug at Trois Rivières. It is not conceivable from whence that number of small rivulets takes their rise, the ground above being flat, and exceeding dry in summer. The lands near the river are cultivated for about an English mile into the country; but behind them there are thick forests, and low grounds. The woods, which collect a quantity of moisture, and prevent the evaporation of the water, force it to make its way under ground to the river. The shores of the river are here covered with a great deal of black iron-sand.

Towards evening we arrived at Trois Rivières, where we staid no longer than was necessary to deliver the letters, which we brought with us from Quebec. After that we went a French mile higher up, before we took our night's lodging.

This afternoon we saw three remarkable old people. One was an old Jesuit, called father Joseph Aubery, who had been a missionary to the converted Indians of St. François. This summer he ended the fiftieth year of his mission. He therefore returned to Quebec, to renew his vows there; and he seemed to be healthy, and in good spirits. The other two people were our landlord and his wife; and he was above eighty years of age, and she was not much younger. They had now been fifty-one years married. The year before, at the end of the fiftieth year of their marriage, they went to church together, and offered up thanks to God Almighty for the great grace he gave them. They were yet quite well, content, merry, and talkative. The old man said, that he was at Quebec when the English besieged it, in the year 1690, and that the bishop went up and down the streets, dressed in his pontifical robes, and a sword in his hand, in order to recruit the spirits of the soldiers.

This old man said, that he thought the winters were formerly much colder than they are now. There fell likewise a greater quantity of snow when he was young. He could remember the time when pumpions, cucumbers, &c. were killed by the frost about midsummer, and he assured me, that the summers were warmer now than they used to be formerly. About thirty and some odd years ago, there was such a severe winter in Canada, that the frost killed many birds; but the old man could not remember the particular year. Every body allowed, that the summers in 1748 and 1749 had been warmer in Canada than they have been many years ago.

The soil is reckoned pretty fertile; and wheat yields nine or ten grains from one. But when this old man was a boy, and the country was new and rich every where, they could get twenty or four-and-twenty grains from one. They sow but little rye here; nor do they sow much barley, except for the use of cattle. They complain, however, that when they have a bad crop they are obliged to bake bread of barley.

Sept. 14th. This morning we got up early, and pursued our journey. After we had gone about two French miles, we got into lake St. Pierre, which we crossed. Many plants, which are common in our Swedish lakes, swim at the top of this water. This lake is said to be covered every winter with such strong ice, that a hundred loaded horses could go over it together with safety.

A craw-fish, or river lobster, somewhat like a crab, but quite minute, about two geometrical lines long, and broad in proportion, was frequently drawn up by us with the aquatic weeds. Its colour is a pale greenish white.

The cordated pontederia * grows plentiful on the sides of a long and narrow canal of water, in the places frequented by our water-lillies †. A great number of hogs wade far into this kind of strait, and sometimes duck the greatest part of their bodies under water, in order to get at the roots, which they are very fond of.

As soon as we were got through lake St. Pierre, the face of the country was entirely changed, and became as agreeable as could be wished. The isles, and the land on both sides of us, looked like the prettiest pleasure-gardens; and this continued till near Montreal.

Near every farm on the river-side there are some boats, hollowed out of the trunks of single trees, but commonly neat and well made, having the proper shape of boats. In one place I saw a boat made of the bark of trees.

Sept. 15th. We continued our journey early this morning. On account of the strength of the river, which came down against us, we were sometimes obliged to let the rowers go on shore, and draw the boat.

At four o'clock in the evening we arrived at Montreal; and our voyage was reckoned a happy one, because the violence of the river flowing against us all the way, and the changeableness of the winds, commonly protract it to fourteen days.

Sept. 19th. Several people here in town have got the French vines, and planted them in their gardens. They have two kinds of grapes, one of a pale green, or almost white; the other, of a reddish brown colour. From the white ones they say white wine is made; and from the red ones, red wine. The cold in winter obliges them to put dung round the roots of the vines, without which they would be killed by the frost. The grapes began to be ripe in these days; the white ones are a little sooner ripe than the red ones. They make no wine of them here, because it is not worth while; but they are served up at desserts. They say these grapes do not grow so big here as in France.

* Pontederia cordata. Linn.

† Nymphææ.

Water-melons * are cultivated in great plenty in the English and French American colonies; and there is hardly a peasant here, who has not a field planted with them. They are chiefly cultivated in the neighbourhood of towns; and they are very rare in the north part of Canada. The Indians plant great quantities of water-melons at present; but whether they have done it of old is not easily determined; for an old Onidoe Indian (of the six Iroquese nations) assured me, that the Indians did not know water-melons before the Europeans came into the country, and communicated them to the Indians. The French, on the other hand, have assured me, that the Illinois Indians have had abundance of this fruit, when the French first came to them; and that they declare, they had planted them since times immemorial. However, I do not remember having read that the Europeans, who first came to North America, mention the water-melons, in speaking of the dishes of the Indians at that time. How great the summer heat is in those parts of America which I have passed through, can easily be conceived, when one considers, that in all those places, they never sow water-melons in hot-beds, but in the open fields in spring, without so much as covering them, and they ripen in time. Here are two species of them, viz. one with a red pulp, and one with a white one. The first is more common to the southward, with the Illinois, and in the English colonies; the last is more abundant in Canada. The seeds are sown in spring, after the cold is entirely gone off, in a good rich ground, at some distance from each other; because their stalks spread far, and require much room, if they shall be very fruitful. They were now ripe at Montreal; but in the English colonies they ripen in July and August. They commonly require less time to ripen in than the common melons. Those in the English colonies are commonly sweeter and more agreeable than the Canada ones. Does the greater heat contribute any thing towards making them more palatable? Those in the province of New York are, however, reckoned the best.

The water-melons are very juicy; and the juice is mixed with a cooling pulp, which is very good in the hot summer-season. Nobody in Canada, in Albany, and in other parts of New York, could produce an example that the eating of water-melons in great quantities had hurt any body; and there are examples even of sick persons eating them without any danger. Further to the south, the frequent use of them, it is thought, brings on intermitting fevers, and other bad distempers, especially in such people as are less used to them. Many Frenchmen assured me, that when people born in Canada came to the Illinois, and eat several times of the water-melons of that part, they immediately got a fever; and therefore the Illinois advise the French not to eat of a fruit so dangerous to them. They themselves are subject to be attacked by fevers, if they cool their stomachs too often with water-melons. In Canada they keep them in a room, which is a little heated; by which means they will keep fresh two months after they are ripe; but care must be taken, that the frost spoil them not. In the English plantations they likewise keep them fresh in dry cellars, during part of the winter. They assured me that they keep better when they are carefully broke off from the stalk, and afterwards burnt with a red-hot iron, in the place where the stalk was fastened. In this manner they may be eaten at Christmas, and after. In Pensylvania, where they have a dry sandy earth, they make a hole in the ground, put the water-melons carefully into it with their stalks, by which means they keep very fresh during a great part of the winter. Few people, however, take this trouble with the water-

* *Cucurbita citrullus*. Linn.

melons, because they being very cooling, and the winter being very cold too, it seems, to be less necessary to keep them for eating in that season, which is already very cold. They are of opinion in these parts, that cucumbers cool more than water-melons. The latter are very strongly diuretic. The Iroquese call them *onoheferakatee*.

Gourds of several kinds, oblong, round, flat or compressed, crook-necked, small, &c. are planted in all the English and French colonies. In Canada, they fill the chief part of the farmers' kitchen-gardens, though the onions came very near up with them. Each farmer in the English plantations, has a large field planted with gourds, and the Germans, Swedes, Dutch, and other Europeans, settled in their colonies, plant them. Gourds are a considerable part of the Indian food; however, they plant more squashes than common gourds. They declare, that they have had gourds long before the Europeans discovered America; which seems to be confirmed by the accounts of the first Europeans that came into these parts, who mentioned gourds as common food among the Indians. The French here call them *citrouilles*, and the English in the colonies, pumpkins. They are planted in spring, when they have nothing to fear from the frost, in an enclosed field, and a good rich soil. They are likewise frequently put into old hot-beds. In Canada, they ripen towards the beginning of September, but further southward they are ripe at the end of July. As soon as the cold weather commences, they take off all the pumpkins that remain on the stalk, whether ripe or not, and spread them on the floor, in a part of the house, where the unripe ones grow perfectly ripe, if they are not laid one upon the other. This is done round Montreal in the middle of September; but in Pennsylvania, I have seen some in the fields on the 19th of October. They keep fresh for several months, and even throughout the winter, if they be well secured in dry cellars (for in damp ones they rot very soon) where the cold cannot come in, or, which is still better, in dry rooms which are heated now and then, to prevent the cold from damaging the fruit.

Pumpkins are prepared for eating in various ways. The Indians boil them whole, or roast them in ashes, and eat them then, or go to sell them thus prepared in the towns; and they have, indeed, a very fine flavour, when roasted. The French and English slice them, and put the slices before the fire to roast; when they are roasted, they generally put sugar on the pulp. Another way of roasting them, is to cut them through the middle, take out all the seeds, put the halves together again, and roast them in an oven. When they are quite roasted, some butter is put in, whilst they are warm, which being imbibed into the pulp, renders it very palatable. They often boil pumpkins in water, and afterwards eat them, either alone or with flesh. Some make a thin kind of pottage of them, by boiling them in water, and afterwards macerating the pulp. This is again boiled with a little of the water, and a good deal of milk, and stirred about whilst it is boiling. Sometimes the pulp is stamped and kneaded into dough, with maize flour or other flour; of this they make cakes. Some make puddings and tarts of gourds. The Indians, in order to preserve the pumpkins for a very long time, cut them in long slices, which they fasten or twist together, and dry them either by the sun, or by the fire in a room. When they are thus dried, they will keep for years together, and when boiled they taste very well. The Indians prepare them thus at home and on their journies, and from them the Europeans have adopted this method. Sometimes they do not take the time to boil it, but eat it dry with hung-beef, or other flesh; and I own they are eatable in that state, and very welcome to a hungry stomach. They sometimes preserve them in the following manner at Montreal. They cut a pumpkin in four pieces, peel them, and take the seeds out of them. The pulp is put
in

in a pot with boiling water, in which it must boil from four to six minutes. It is then put into a cullender, and left in it till the next day, that the water may run off. When it is mixed with cloves, cinnamon, and some lemon peel, preserved in syrup, and there must be an equal quantity of syrup and of the pulp. After which it is boiled together, till the syrup is entirely imbibed, and the white colour of the pulp is quite lost.

Sept. 20th. The corn of this year's harvest in Canada, was reckoned the finest they had ever had. In the province of New York, on the contrary, the crop was very poor. The autumn was very fine this year in Canada.

Sept. 22d. The French in Canada carry on a great trade with the Indians; and though it was formerly the only trade of this extensive country, yet its inhabitants were considerably enriched by it. At present, they have besides the Indian goods, several other articles which are exported from hence. The Indians in this neighbourhood, who go hunting in winter like the other Indian nations, commonly bring their furs and skins to sale in the neighbouring French towns; however, this is not sufficient. The Indians who live at a greater distance, never come to Canada at all; and, lest they should bring their goods to the English, as the English go to them, the French are obliged to undertake journies, and purchase the Indian goods in the country of the Indians. This trade is chiefly carried on at Montreal, and a great number of young and old men every year undertake long and troublesome voyages for that purpose, carrying with them such goods as they know the Indians like, and are in want of. It is not necessary to take money on such a journey, as the Indians do not value it; and indeed I think the French, who go on these journies, scarce ever take a sol or penny with them.

I will now enumerate the chief goods which the French carry with them for this trade, and which have a good run among the Indians.

Muskets, powder, shot, and balls. The Europeans have taught the Indians in their neighbourhood the use of fire-arms, and they have laid aside their bows and arrows, which were formerly their only arms, and make use of muskets. If the Europeans should now refuse to supply the Indians with muskets, they would be starved to death; as almost all their food consists of the flesh of the animals, which they hunt; or they would be irritated to such a degree as to attack the Europeans. The Indians have hitherto never tried to make muskets or similar fire-arms; and their great indolence does not even allow them to mend those muskets which they have got. They leave this entirely to the Europeans. As the Europeans came into North America, they were very careful not to give the Indians any fire-arms. But in the wars between the French and English, each party gave their Indian allies fire-arms, in order to weaken the force of the enemy. The French lay the blame upon the Dutch settlers in Albany, saying, that they began, in 1642, to give their Indians fire-arms, and taught them the use of them, in order to weaken the French. The inhabitants of Albany, on the contrary, assert, that the French first introduced this custom, as they would have been too weak to resist the combined force of the Dutch and English in the colonies. Be this as it will, it is certain that the Indians buy muskets from the Europeans, and know at present better how to make use of them, than some of their teachers. It is likewise certain, that the Europeans gain considerably by their trade in muskets and ammunition.

Pieces of white cloth, or of a coarse uncut cloth. The Indians constantly wear such pieces of cloth, wrapping them round their bodies. Sometimes they hang them over their shoulders; in warm weather, they fasten them round the middle; and in cold

cold weather, they put them over the head. Both their men and women wear these pieces of cloth, which have commonly several blue or red stripes on the edge.

Blue or red cloth. Of this the Indian women make their petticoats, which reach only to their knees. They generally chuse the blue colour.

Shirts and shifts of linen. As soon as an Indian fellow, or one of their women, have put on a shirt, they never wash it, or strip it off, till it is entirely torn in pieces.

Pieces of cloth. Which they wrap round their legs instead of stockings, like the Russians.

Hatchets, knives, scissars, needles, and a steel to strike fire with. These instruments are now common among the Indians. They all take these instruments from the Europeans, and reckon the hatchets and knives much better than those which they formerly made of stones and bones. The stone hatchets of the ancient Indians are very rare in Canada.

Kettles of copper or brass, sometimes tinned in the inside. In these the Indians now boil all their meat, and they have a very great run with them. They formerly made use of earthen or wooden pots, into which they poured water or whatever else they wanted to boil, and threw in red hot stones to make it boil. They do not want iron boilers, because they cannot be easily carried on their continual journies, and would not bear such falls and knocks as their kettles are subject to.

Ear-rings of different sizes, commonly of brass, and sometimes of tin. They are worn by both men and women, though the use of them is not general.

Vermillion. With this they paint their face, shirt, and several parts of the body. They formerly made use of a reddish earth, which is to be found in the country; but as the Europeans brought them vermilion, they thought nothing was comparable to it in colour. Many persons have told me, that they had heard their fathers mention, that the first Frenchmen who came over here got a great heap of furs from the Indians, for three times as much cinnabar as would lie on the tip of a knife.

Verdigrease, to paint their faces green. For the black colour, they make use of the soot at the bottom of their kettles, and daub their whole face with it.

Looking-glasses. The Indians are very much pleased with them, and make use of them chiefly when they want to paint themselves. The men constantly carry their looking-glasses with them on all their journies, but the women do not. The men, upon the whole, are more fond of dressing than the women.

Burning glasses. These are excellent pieces of furniture in the opinion of the Indians; because they serve to light the pipe without any trouble, which an indolent Indian is very fond of.

Tobacco is bought by the northern Indians, in whose country it will not grow. The southern Indians always plant as much of it as they want for their own consumption. Tobacco has a great run amongst the northern Indians, and it has been observed, that the further they live to the northward, the more they smoke of tobacco.

Wampum, or, as they are here called, porcelanes. They are made of a particular kind of shells, and turned into little short cylindrical beads, and serve the Indians for money and ornament.

Glass beads, of a small size, and white or other colours. The Indian women know how to fasten them in their ribbands, pouches, and cloths.

Brass and steel wire, for several kinds of work.

Brandy, which the Indians value above all other goods that can be brought them; nor have they any thing, though ever so dear to them, which they would not give away for

for this liquor. But, on account of the many irregularities which are caused by the use of brandy, the sale of it has been prohibited under severe penalties; however, they do not always pay an implicit obedience to this order.

These are the chief goods which the French carry to the Indians, and they have a good run among them.

The goods which they bring back from the Indians, consist entirely in furs. The French get them in exchange for their goods, together with all the necessary provisions they want on the journey. The furs are of two kinds; the best are the northern ones, and the worst sort those from the south.

In the northern parts of America there are chiefly the following skins of animals: bears, beavers, elks*, rein-deer†, wolf-lynxes‡, and martens. They sometimes get martens' skins from the south, but they are red, and good for little. Pichou du Nord is perhaps the animal which the English, near Hudson's bay, call the wolverene. To the northern furs belong the bears, which are but few, and foxes, which are not very numerous, and generally black; and several other skins.

The skins of the southern parts are chiefly taken from the following animals: wild cattle, stags, roebucks, otters, Pichoux du Sud, of which P. Charlevoix makes mention §, and are probably a species of cat-lynx, or perhaps a kind of panther; foxes of various kinds, raccoons, cat-lynxes, and several others.

It is inconceivable what hardships the people in Canada must undergo on their journeys. Sometimes they must carry their goods a great way by land; frequently they are abused by the Indians, and sometimes they are killed by them. They often suffer hunger, thirst, heat, and cold, are bit by gnats, and exposed to the bites of poisonous snakes, and other dangerous animals and insects. These destroy a great part of the youth in Canada, and prevent the people from growing old. By this means, however, they become such brave soldiers, and so inured to fatigue, that none of them fear danger or hardships. Many of them settle among the Indians far from Canada, marry Indian women, and never come back again.

The prices of the skins in Canada, in the year 1749, were communicated to me by M. de Couagne, a merchant at Montreal, with whom I lodged. They were as follow:

Great and middle sized bear skins, cost five livres.

Skins of young bears, fifty sols.

——— lynxes, twenty-five sols.

——— Pichoux du Sud, thirty-five sols.

——— foxes from the southern parts, thirty-five sols.

——— otters, five livres.

——— raccoons, five livres.

——— martens, forty-five sols.

——— wolf-lynxes ||, four livres.

——— wolves, forty sols.

——— Carcajoux, an animal which I do not know, five livres.

——— Vifons, a kind of martens, which live in the water, twenty-five sols.

Raw skins of elks ¶, ten livres.

——— stags**.

Bad skins of elks and stags ††, three livres.

* Originacs.

† Cariboux.

‡ Loup cerviers.

§ In his Hist. de la Nouv. France, tom. v. p. 158.

|| Loups cerviers.

¶ Originacs verts.

** Cerfs verts.

†† Originacs et cerfs passés.

Skins of roebucks, twenty-five, or thirty sols.

——— red foxes, three livres.

——— beavers, three livres.

I will now insert a list of all the different kinds of skins, which are to be got in Canada, and which are sent from thence to Europe. I got it from one of the greatest merchants in Montreal. They are as follow :

Prepared roebuck skins, *chevreuils passés*.

Unprepared ditto, *chevreuils verts*.

Tanned ditto, *chevreuils tanés*.

Bears, *ours*.

Young bears, *oursons*.

Otters, *loutres*.

Pecans.

Cats, *chats*.

Wolves, *loup de bois*.

Lynxes, *loux cerviers*.

North Pichoux, *pichoux du nord*.

South Pichoux, *pichoux du sud*.

Red foxes, *renards rouges*.

Cross foxes, *renards croisés*.

Black foxes, *renards noirs*.

Grey foxes, *renards argentés*.

Southern, or Virginian foxes, *renards du sud où de Virginie*.

White foxes, from Tadoussac, *renards blancs de Tadoussac*.

Martens, *martres*.

Visons, or *foutreaux*.

Black squirrels, *ecureuils noirs*.

Raw stags skins, *cerfs verts*.

Prepared ditto, *cerfs passés*.

Raw elks skins, *originacs verts*.

Prepared ditto, *originax passés*.

Rein-deer skins, *cariboux*.

Raw hind skins, *biches verts*.

Prepared ditto, *biches passées*.

Carcajous.

Musk rats, *rats musques*.

Fat winter beavers, *castors gras d'hiver*.

Ditto summer beavers, *castors gras d'été*.

Dry winter beavers, *castors secs d'hiver*.

Ditto summer beavers, *castors secs d'été*.

Old winter beavers, *castors vieux d'hiver*.

Ditto summer beavers, *castors vieux d'été*.

To-day, I got a piece of native copper from the Upper Lake. They find it there almost quite pure ; so that it does not want melting over again, but is immediately fit for working. Father Charlevoix * speaks of it in his history of New France. One of the Jesuits at Montreal, who had been at the place where this metal is got, told me,

* See his Hist. de. la Nouv. Fr. tom. vi. p. 415.

that

that it is generally found near the mouths of rivers, and that there are pieces of native copper too heavy for a single man to lift up. The Indians there say, that they formerly found a piece of about seven feet long, and near four feet thick, all of pure copper. As it is always found in the ground near the mouths of rivers, it is probable that the ice or water carried it down from a mountain; but, notwithstanding the careful search that has been made, no place has been found where the metal lies in any great quantity together.

The head or superior of the priests of Montreal, gave me a piece of lead-ore to-day. He said it was taken from a place only a few French miles from Montreal, and it consisted of pretty compact, shining cubes of lead-ore. I was told by several persons here, that furthermore southward in the country, there is a place where they find a great quantity of this lead-ore in the ground. The Indians near it, melt it, and make balls and shot of it. I got some pieces of it likewise, consisting of a shining cubic lead-ore, with narrow stripes between it, and of a white hard earth or clay, which effervesces with aqua-fortis.

I likewise received a reddish brown earth to-day, found near the Lac de Deux Montagnes, or Lake of Two Mountains, a few French miles from Montreal. It may be easily crumbled into dust between the fingers. It is very heavy, and more so than the earth of that kind generally is. Outwardly, it has a kind of glossy appearance, and, when it is handled by the fingers for some time, they are quite as it were silvered over. It is therefore probable, a kind of lead-earth, or an earth mixed with iron-glimmer.

The ladies in Canada are generally of two kinds: some come over from France, and the rest natives. The former possess the politeness peculiar to the French nation; the latter may be divided into those of Quebec and Montreal. The first of these are equal to the French ladies in good breeding, having the advantage of frequently conversing with the French gentlemen and ladies, who come every summer with the king's ships, and stay several weeks at Quebec, but seldom go to Montreal. The ladies of this last place are accused by the French of partaking too much of the pride of the Indians, and of being much wanted in French good breeding. What I have mentioned above of their dressing their head too assiduously, is the case with all the ladies throughout Canada. On those days when they pay or receive visits, they dress so gaily, that one is almost induced to think their parents possessed the greatest dignities in the state. The Frenchmen, who considered things in their true light, complained very much that a great part of the ladies in Canada had got into the pernicious custom of taking too much care of their dress, and squandering all their fortunes, and more, upon it, instead of sparing something for future times. They are no less attentive to have the newest fashions; and they laugh at each other, when they are not dressed to each other's fancy. But what they get as new fashions, are grown old, and laid aside in France; for the ships coming but once every year from thence, the people in Canada consider that as the new fashion for the whole year, which the people on board brought with them, or which they imposed upon them as new. The ladies in Canada, and especially at Montreal, are very ready to laugh at any blunders strangers make in speaking. In Canada nobody ever hears the French language spoken by any but Frenchmen; for strangers seldom come thither, and the Indians are naturally too proud to learn French, but oblige the French to learn their language. From hence it naturally follows, that the nice Canada ladies cannot hear any thing uncommon without laughing at it. One of the first questions they propose to a stranger is, whether he is married? The next, how he likes the ladies in the country; and whether he thinks them handsomer than those

those of his own country; and the third, whether he will take one home with him? There is some difference between the ladies of Quebec, and those of Montreal; those of the last place seemed to be generally handsomer than those of the former. Their behaviour likewise seemed to me to be somewhat too free at Quebec, and of a more becoming modesty at Montreal. The ladies at Quebec, especially the unmarried ones, are not very industrious. A girl of eighteen is reckoned very poorly off, if she cannot enumerate at least twenty lovers. These young ladies, especially those of a higher rank, get up at seven, and dress till nine, drinking their coffee at the same time. When they are dressed, they place themselves near a window that opens into the street, take up some needle-work, and sew a stitch now and then; but turn their eyes into the street most of the time. When a young fellow comes in, whether they are acquainted with him or not, they immediately lay aside their work, sit down by him, and begin to chat, laugh, joke, and invent double-entendres; and this is reckoned being very witty*. In this manner they frequently pass the whole day, leaving their mothers to do all the business in the house. In Montreal, the girls are not quite so volatile, but more industrious. They are always at their needle-work, or doing some necessary business in the house. They are likewise cheerful and content; and nobody can say that they want either wit or charms. Their fault is that they think too well of themselves. However, the daughters of people of all ranks, without exception, go to market, and carry home what they have bought. They rise as soon, and go to bed as late as any of the people in the house. I have been assured, that, in general, their fortunes are not considerable; which are rendered still more scarce by the number of children, and the small revenues in a house. The girls at Montreal are very much displeased that those at Quebec get husbands sooner than they. The reason of this is, that many young gentlemen that come over from France with the ships, are captivated by the ladies at Quebec, and marry them; but as these gentlemen seldom go up to Montreal, the girls there are not often so happy as those of the former place.

Sept. 23d. This morning I went to Saut au Recollet, a place three French miles northward of Montreal, to describe the plants and minerals there, and chiefly to collect seeds of various plants. Near the town there are farms on both sides of the road; but as one advances farther on, the country grows woody, and varies in regard to height. It is generally very strong; and there are both pieces of rock-stone and a kind of grey lime-stone. The roads are bad and almost impassable for chaises. A little before I arrived at Saut au Recollet, the woods end, and the country is turned into corn-fields, meadows, and pastures.

About a French mile from the town are two lime-kilns on the road. They are built of a grey lime-stone, burnt hard, and of pieces of rock-stone, towards the fire. The height of the kiln from top to bottom is seven yards.

The lime-stone which they burn here, is of two kinds. One is quite black, and so compact, that its constituent particles cannot be distinguished, some dispersed grains of white and pale grey spar excepted. Now and then there are thin cracks in it filled with a white small-grained spar.

I have never seen any petrifications in this stone, though I looked very carefully for them. This stone is common on the isle of Montreal, about ten or twenty inches below the upper soil. It lies in strata of five or ten inches thickness. This stone is said to give the best lime; for, though it is not so white as that of the following grey lime-

* Avoir beaucoup d'esprit.

stone, yet it makes better mortar, and almost turns into stone, growing harder and more compact every day. There are examples, that when they have been about to repair a house made partly of this mortar, the other stones of which the house consists, sooner broke in pieces than the mortar itself.

The other kind is a grey, and sometimes a dark grey lime-stone, consisting of a compact calcareous stone, mixed with grains of spar, of the same colour. It is full of petrified striated shells or pectinites. The greatest part of these petrifications are, however, only impressions of the hollow side of the shells. Now and then I found likewise petrified pieces of the shell itself, though I could never find the same shells in their natural state on the shores; and it seems inconceivable how such a quantity of impressions could come together, as I shall presently mention.

I have had great pieces of this lime-stone, consisting of little else than pectinites, lying close to one another. This lime-stone is found on several parts of the isle, where it lies in horizontal strata of the thickness of five or ten inches. This stone yields a great quantity of white lime, but it is not so good as the former, because it grows damp in wet weather.

Fir-wood is reckoned the best for the lime-kilns and the thuya wood next to it. The wood of the sugar-maple, and other trees of a similar nature, are not fit for it, because they leave a great quantity of coals.

Grey pieces of rock-stone are to be seen in the woods and fields hereabouts.

The leaves of several trees and plants began now to get a pale hue; especially those of the red maple, the smooth sumach*, the polygonum sagittatum, Linn. and several of the ferns.

A great cross is erected on the road, and the boy who shewed me the wood, told me that a person was buried there, who had wrought great miracles.

At noon I arrived at Saut au Recollet, which is a little place situated on a branch of the river St. Lawrence, which flows with a violent current between the isles of Montreal and Jesus. It has got its name from an accident which happened to a Recollet friar, called Nicholas Veil, in the year 1625. He went into a boat with a converted Indian, and some Indians of the nation of Hurons, in order to go to Quebec; but, on going over this place in the river, the boat overset, and both the friar and his profelyte were drowned. The Indians (who have been suspected of occasioning the oversetting of the boat) swam to the shore, saved what they could of the friar's effects, and kept them.

The country hereabouts is full of stones, and they have but lately began to cultivate it; for all the old people could remember the places covered with tall woods, which are now turned into corn-fields, meadows, and pastures. The priests say, that this place was formerly inhabited by some converted Hurons. These Indians lived on a high mountain, at a little distance from Montreal, when the French first arrived here, and the latter persuaded them to sell that land. They did so, and settled here at Saut au Recollet, and the church which still remains here was built for them, and they have attended divine service in it for many years. As the French began to increase on the isle of Montreal, they wished to have it entirely to themselves, and persuaded the Indians again to sell them this spot, and go to another. The French have since prevailed upon the Indians (whom they did not like to have amongst them, because of their drunkenness, and rambling idle life) to leave this place again, and go to settle at the Lake des Deux Montagnes, where they are at present, and have a fine church of stone. Their church at Saut au Recollet is of wood, looks very old and ruinous, though

* *Rhus glabrum*. Linn.

its inside is pretty good, and is made use of by the Frenchmen in this place. They have already brought a quantity of stones hither, and intend building a new church very soon.

Though there had been no rain for some days past, yet the moisture in the air was so great, that as I spread some papers on the ground this afternoon, in a shady place, intending to put the seeds I collected into them, they were so wet in a few minutes time, as to be rendered quite useless. The whole sky was very clear and bright, and the heat as intolerable as in the middle of July.

One half of the corn-fields are left fallow alternately. The fallow-grounds are never ploughed in summer; so the cattle can feed upon the weeds that grow on them. All the corn made use of here is summer corn, as I have before observed. Some plough the fallow grounds late in autumn; others defer that business till spring; but the first way is said to give a much better crop. Wheat, barley, rye, and oats, are harrowed, but pease are ploughed under ground. They sow commonly about the 15th of April, and begin with the pease. Among the many kinds of pease which are to be got here, they prefer the green ones to all others for sowing. They require a high, dry, poor ground, mixed with coarse sand. The harvest time commences about the end, and sometimes in the middle of August. Wheat returns generally fifteen, and sometimes twenty fold; oats from fifteen to thirty fold. The crop of pease is sometimes forty fold, but at other times only ten fold; for they are very different. The plough and harrow are the only instruments of husbandry they have, and those none of the best sort neither. The manure is carried upon the fallow grounds in spring. The soil consists of a grey stony earth, mixed with clay and sand. They sow no more barley than is necessary for the cattle; for they make no malt here. They sow a good deal of oats, but merely for the horses, and other cattle. Nobody knows here how to make use of the leaves of deciduous trees as a food for the cattle, though the forests are furnished with no other than trees of that kind, and though the people are commonly forced to feed their cattle at home during five months.

I have already repeatedly mentioned, that almost all the wheat which is sown in Canada is summer wheat, that is such as is sown in spring. Near Quebec it sometimes happens, when the summer is less warm, or the spring later than common, that a great part of the wheat does not ripen perfectly before the cold commences. I have been assured that some people, who live on the Isle de Jesus, sow wheat in autumn, which is better, finer, and gives a more plentiful crop than the summer wheat; but it does not ripen above a week before the other wheat.

Sept. 25th. In several places hereabouts, they enclose the field with a stone fence, instead of wooden pales. The plenty of stones which are to be got here render the harbour very trifling.

Here are abundance of beech-trees in the woods, and they now had ripe seeds. The people in Canada collect them in autumn, dry them, and keep them till winter, when they eat them instead of walnuts and hazel-nuts; and I am told they taste very well.

There is a salt spring, as the priest of this place informed me, seven French miles from hence, near the river D'Assomption; of which during the war, they have made a fine white salt. The water is said to be very briny.

Some kinds of fruit-trees succeed very well near Montreal, and I had here an opportunity of seeing some very fine pears and apples of various sorts. Near Quebec the pear-trees will not succeed, because the winter is too severe for them; and sometimes they are killed by the frost in the neighbourhood of Montreal. Plum-trees of several

forts were first brought over from France, succeed very well, and withstand the rigours of winter. Three sorts of America walnut-trees grow in the woods; but the walnut-trees brought over from France die almost every year down to the very root, bringing forth new shoots in spring. Peach-trees cannot well agree with this climate; a few bear the cold, but, for greater safety, they are obliged to put straw round them. Chesnut-trees, mulberry-trees, and the like, have never yet been planted in Canada.

The whole cultivated part of Canada has been given away by the King to the clergy, and some noblemen; but all the uncultivated parts belong to him, as likewise the place on which Quebec and Trois Rivières are built. The ground on which the town of Montreal is built, together with the whole isle of that name, belongs to the priests of the order of St. Sulpicius, who live at Montreal. They have given the land in tenure to farmers and others who were willing to settle on it. The first settlers paid a trifling rent for their land; for frequently the whole lease for a piece of ground, three arpens broad, and thirty long, consist in a couple of chickens; and some pay twenty, thirty, or forty sols, for a piece of land of the same size. But those who came latter, must pay near two ecus (crowns) for such a piece of land, and thus the land-rent is very unequal throughout the country. The revenues of the bishop of Canada do not arise from any landed property. The churches are built at the expence of the congregations. The inhabitants of Canada do not yet pay any taxes to the King; and he has no other revenues from it, than those which arise from the custom-house.

The priests of Montreal have a mill here, where they take the fourth part of all that is ground. However, the miller receives a third part of this share. In other places he gets the half of it. The priests sometimes lease the mill for a certain sum. Besides them nobody is allowed to erect a mill on the isle of Montreal, they having reserved that right to themselves. In the agreement drawn up between the priests and the inhabitants of the isle, the latter are obliged to get all their corn ground in the mills of the former.

They boil a good deal of sugar in Canada of the juice running out of the incisions in the sugar-maple, the red maple, and the sugar-birch; but that of the first tree is most commonly made use of. The way of preparing it has been more minutely described by me in the Memoirs of the Royal Swedish Academy of Sciences*.

Sept. 26th. Early this morning I returned to Montreal. Every thing began now to look like autumn. The leaves of the trees were pale or reddish, and most of the plants had lost their flowers. Those which still preserved them were the following †.

Several sorts of asters, both blue and white.

Golden rods of various kinds.

Common milfoil.

Common self-heal.

The crisped thistle.

The biennial oenothera.

The rough-leaved sun-flower, with trifoliated leaves.

The Canada violet,

A species of gentian.

Wild vines are abundant in the woods hereabouts, climbing up very high trees.

* See the volume for 1751.

† Asters. Solidagines. Achillea millefolium. Prunella vulgaris. Carduus crispus. Oenothera biennis. Rudbeckia irriloba. Viola Canadensis. Gentiana Saponaria.

I have made enquiry among the French, who travel far into the country, concerning the food of the Indians. Those who live far north, I am told, cannot plant any thing, on account of the great degree of cold. They have, therefore, no bread, and do not live on vegetables; flesh and fish is their only food, and chiefly the flesh of beavers, bears, rein-deer, elks, hares, and several kinds of birds. Those Indians who live far southward eat the following things. Of vegetables they plant maize, wild kidney-beans* of several kinds, pumpions of different sorts, squashes, a kind of gourds, water-melons, and melons†. They likewise eat various fruits which grow in their woods. Fish and flesh make a very great part of their food; and they chiefly like the flesh of wild cattle, roe-bucks, stags, bears, beavers, and some other quadrupeds. Among their dainty dishes, they reckon the water tare-grass‡, which the French call Folle Avoine, and which grows in plenty in their lakes, in stagnant waters, and sometimes in rivers which flow slowly. They gather its seeds in October, and prepare them in different ways, and chiefly as groats, which take almost as well as rice. They make likewise many a delicious meal of the several kinds of walnuts, chesnuts, mulberries, acimine§, chin-quapins||, hazel-nuts, peaches, wild prunes, grapes, whortle-berries of several sorts, various kinds of medlars, black-berries, and other fruit and roots. But the species of corn, so common in what is called the Old World, were entirely unknown here before the arrival of the Europeans; nor do the Indians at present ever attempt to cultivate them, though they see the use which the Europeans make of the culture of them, and though they are fond of eating the dishes which are prepared of them.

Sept. 27. Beavers are abundant all over North America, and they are one of the chief articles of the trade in Canada. The Indians live upon their flesh during a great part of the year. It is certain that these animals multiply very fast; but it is no less so, that vast numbers of them are annually killed, and that the Indians are obliged at present to undertake distant journeys, in order to catch or shoot them. Their decreasing in number is very easily accounted for; because the Indians, before the arrival of the Europeans, only caught as many as they found necessary to clothe themselves with, there being then no trade with the skins. At present a number of ships go annually to Europe, laden chiefly with beavers skins; the English and French endeavour to out-do each other, by paying the Indians well for them, and this encourages the latter to extirpate these animals. Many people in Canada told me, that when they were young, all the rivers in the neighbourhood of Montreal, the river St. Lawrence not excepted, were full of beavers and their dykes; but at present they are extirpated in that quarter.

Beaver-flesh is eaten not only by the Indians, but likewise by the Europeans, and especially the French, on their fasting days; for His Holiness, in his system, has ranged the beaver among the fish. The flesh is reckoned best, if the beaver has lived upon vegetables, such as the asp, and the beaver-tree¶; but when he has eaten fish, it does not taste well. To-day I tasted this flesh boiled, for the first time; and though every body present, besides myself, thought it a delicious dish, yet I could not agree with them. I think it is eatable, but has nothing delicious. It looks black when boiled, and has a peculiar taste. In order to prepare it well, it must be boiled in several waters from morning till noon, that it may loose the bad taste it has. The tail is likewise eaten, after it has been boiled in the same manner, and roasted afterwards; but it consists of fat only, though they would not call it so; and cannot be swallowed by one who is

* Phaeoli.

§ Annona muricata. Linn.

† Cucumis melo. Linn.

|| Fagus pumila. Linn.

‡ Zizania aquatica. Linn.

¶ Magnolia glauca. Linn.

not used to eat it. Sometimes, though but seldom, they catch beavers with white hair.

Wine is almost the only liquor which people above the vulgar are used to drink. They make a kind of spruce-beer of the top of the white-fir *, which they drink in summer; but the use of it is not general; and it is seldom drank by people of quality. Thus great sums go annually out of the country for wine; as they have no vines here of which they could make a liquor that is fit to be drank. The common people drink water; for it is not yet customary here to brew beer of malt; and there are no orchards large enough to supply the people with apples for making cyder. Some of the people of rank, who possess large orchards, sometimes, out of curiosity, get a small quantity of cyder made. The great people here, who are used from their youth to drink nothing but wine, are greatly at a loss in time of war; when all the ships which brought wine are intercepted by the English privateers. Towards the end of the last war, they gave two hundred and fifty francs, and even one hundred ecus, for a barrique, or hoghead, of wine.

A middling horse now costs forty francs † and upwards; a good horse is valued at an hundred francs, or more. A cow is sold for fifty francs; but people can remember the time when they were sold for ten ecus ‡. A sheep costs five or six livres at present; but last year, when every thing was dear, it cost eight or ten francs. A hog of one year old, and two hundred, or an hundred and fifty pounds weight, is sold at fifteen francs. M. Couagne, the merchant, told me, that he had seen a hog of four hundred weight among the Indians. A chicken is sold for ten or twelve sols §; and a turkey for twenty sols. A minot || of wheat sold for an ecu last year; but at present it cost forty sols. Maize is always of the same price with wheat, because here is but little of it; and it is all made use of by those who go to trade with the Indians. A minot of oats costs sometimes from fifteen to twenty sols; but of late years it has been sold for twenty-six, or thirty sols. Pease bear always the same price with wheat. A pound of butter costs commonly about eight or ten sols; but last year it rose up to sixteen sols. A dozen of eggs used to cost but three sols; however, now are sold for five. They make no cheese at Montreal; nor is there any to be had, except what is got from abroad. A water-melon generally costs five or six sols; but, if of a large size, from fifteen to twenty.

There are as yet no manufactures established in Canada; probably, because France will not lose the advantage of selling off its own goods here. However, both the inhabitants of Canada, and the Indians, are very ill off for want of them, in times of war.

Those persons who want to be married, must have the consent of their parents: however, the judge may give them leave to marry, if the parents oppose their union without any valid reason. Likewise, if the man be thirty years of age, and the woman twenty-six, they may marry, without farther waiting for their parents consent.

Sept. 29th. This afternoon I went out of town, to the south-west part of the isle, in order to view the country, and the œconomy of the people, and to collect several seeds. Just before the town are some fine fields, which were formerly cultivated, but now serve as pastures. To the north-west appears the high mountain which lies west-

* Apinette blanche. The way of brewing this beer is described at large in the Memoirs of the Royal Academy of Sciences, for the year 1751, p. 190.

† Franc is the same as livre; and twenty-two livres make a pound sterling.

‡ An ecu is three francs. § Twenty sols make one livre.

|| A French measure, about the same as two bushels in England.

ward of Montreal, and is very fertile, and covered with fields and gardens from the bottom to the summit. On the south-east side is the river St. Lawrence, which is very broad here; and on its sides are extensive corn-fields and meadows, and fine houses of stone, which look white at a distance. At a great distance south-eastward, appear the two high mountains near Fort Chamblais, and some others near Lake Champlain, raising their tops above the woods. All the fields hereabouts are filled with stones of different sizes; and among them there is frequently seen a black lime-stone. About a French mile from the town, the high road goes along the river, which is on the left hand; and on the right hand all the country is cultivated and inhabited. The farm-houses are three, four, or five arpents distant from each other. The hills near the river are generally high and pretty steep; they consist of earth; and the fields below them are filled with pieces of rock-stone, and of black lime-slate. About two French miles from Montreal, the river runs very rapidly, and is full of stones; in some places there are some waves. However, those who go in boats into the southern parts of Canada, are obliged to work through such places.

Wild-geese and ducks began to migrate in great flocks to the southern countries.

October 2d. The two preceding days, and this, I employed chiefly in collecting seeds.

The last night's frost had caused a great alteration in several trees. Walnut-trees of all sorts shed their leaves in plenty now. The flowers of a kind of nettle* were all entirely killed by the frost. The leaves of the American lime-tree were likewise damaged. In the kitchen-gardens the leaves of the melons were all killed by the frost; however, the beech, oak, and birch, did not seem to have suffered at all. The fields were all covered with a hoar-frost. The ice in the pools of water was a geometrical line and a half in thickness.

The biennial oenothera† grows in abundance on open woody hills, and fallow fields. An old Frenchman, who accompanied me as I was collecting its seeds, could not sufficiently praise its property of healing wounds. The leaves of the plant must be crushed, and then laid on the wound.

Sœurs de Congregation are a kind of religious women, different from nuns. They do not live in a convent, but have houses both in the town and country. They go where they please, and are even allowed to marry, if an opportunity offers; but this, I am told, happens very seldom. In many places in the country, there are two or more of them: they have their house commonly near a church, and generally the parsonage-house is on the other side of the church. Their business is to instruct young girls in the Christian religion, to teach them reading, writing, needle-work, and other female accomplishments. People of fortune board their daughters with them for some time. They have their boarding, lodging, beds, instruction, and whatever else they want, upon very reasonable terms. The house where the whole community of these ladies live, and from whence they are sent out into the country, is at Montreal. A lady that wants to become incorporated among them, must pay a considerable sum of money towards the common stock; and some people reckon it to be four thousand livres. If a person be once received, she is sure of a subsistence during her life-time.

La Chine is a fine village, three French miles to the south-east of Montreal, but on the same isle, close to the river St. Lawrence. The farm-houses lie along the river side, about four or five arpents from each other. Here is a fine church of stone, with a

* *Urtica divaricata*. Linn.

† *Oenothera biennis*. Linn.

small steeple; and the whole place has a very agreeable situation. Its name is said to have had the following origin. As the unfortunate M. Salée was here, who was afterwards murdered by his own countrymen further up in the country, he was very intent upon discovering a shorter road to China, by means of the river St. Lawrence. He talked of nothing at that time but his new short way to China; but as his project of undertaking this journey, in order to make this discovery, was stopped by an accident which happened to him here, and he did not that time come any nearer China, this place got its name, as it were, by way of joke.

This evening I returned to Montreal.

Oct. 5th. The governor-general at Quebec is, as I have already mentioned before, the chief commander in Canada. Next to him is the intendant at Quebec; then follows the governor of Montreal, and after him the governor of Trois Rivières. The intendant has the greatest power next to the governor-general; he pays all the money of government, and is president of the board of finances, and of the court of justice in this country. He is, however, under the governor-general, for if he refuses to do any thing to which he seems obliged by his office, the governor-general can give him orders to do it, which he must obey. He is allowed, however, to appeal to the government in France. In each of the capital towns, the governor is the highest person, then the lieutenant-general, next to him a major, and after him the captains. The governor-general gives the first orders in all matters of consequence. When he comes to Trois Rivières and Montreal, the power of the governor ceases, because he always commands where he is. The governor-general commonly goes to Montreal once every year, and mostly in winter; and during his absence from Quebec, the lieutenant-general commands there. When the governor-general dies, or goes to France, before a new one is come in his stead, the governor of Montreal goes to Quebec, to command in the mean while, leaving the major to command at Montreal.

One or two of the king's ships are annually sent from France to Canada, carrying recruits to supply the places of those soldiers, who either died in the service, or have got leave to settle in the country, and turn farmers, or to return to France. Almost every year they send a hundred, or a hundred and fifty people over in this manner. With these people they likewise send over a great number of persons who have been found guilty of smuggling in France. They were formerly condemned to the galleys, but at present they send them to the colonies, where they are free as soon as they arrive, and can choose what manner of life they please, but are never allowed to go out of the country without the king's special licence. The king's ships likewise bring a great quantity of merchandizes which the king has bought, in order to be distributed among the Indians on certain occasions. The inhabitants of Canada pay very little to the king. In the year 1748, a beginning was however made by laying a duty of three per cent. on all French goods imported by the merchants of Canada. A regulation was likewise made at that time, that all the furs and skins exported to France from hence, should pay a certain duty; but what is carried to the colonies pays nothing. The merchants of all parts of France and its colonies, are allowed to send ships with goods to this place; and the Quebec merchants are at liberty likewise to send their goods to any place in France, and its colonies. But the merchants at Quebec have but few ships, because the sailors wages are very high. The towns in France which chiefly trade with Canada, are Rochelle and Bourdeaux; next to them are Marseilles, Nantes, Havre de Grace, St. Malo, and others. The king's ships which bring goods to this country, come either from Brest or from Rochefort. The merchants at Quebec send flour, wheat, pease, wooden utensils, &c. on their own bottoms, to the

French possessions in the West Indies. The walls round Montreal were built in 1738, at the king's expence, on condition the inhabitants should, little by little, pay off the cost to the king. The town at present pays annually six thousand livres for them to government, of which two thousand are given by the seminary of priests. At Quebec the walls have likewise been built at the king's expence, but he did not re-demand the expence of the inhabitants, because they had already the duty upon goods to pay as above mentioned. The beaver-trade belongs solely to the Indian company in France, and nobody is allowed to carry it on here, besides the people appointed by that company. Every other fur trade is open to every body. There are several places among the Indians far in the country, where the French have stores of their goods; and these places they call *les postes*. The king has no other fortresses in Canada than Quebec, Fort Chamblais, Fort St. Jean, Fort St. Frederick, or Crownpoint, Montreal, Frontenac, and Niagara. All other places belong to private persons. The king keeps the Niagara trade all to himself. Every one who intends to go to trade with the Indians must have a licence from the governor-general, for which he must pay a sum according as the place he is going to is more or less advantageous for trade. A merchant who sends out a boat laden with all sorts of goods, and four or five persons with it, is obliged to give five or six hundred livres for the permission; and there are places for which they give a thousand livres. Sometimes one cannot buy the licence to go to a certain trading place, because the governor-general has granted, or intends to grant it to some acquaintance or relation of his. The money arising from the granting of licences belongs to the governor-general.

TRAVELS
THROUGH
THE MIDDLE SETTLEMENTS IN NORTH AMERICA,

In the Years 1759 and 1760;

WITH OBSERVATIONS UPON THE STATE OF THE COLONIES.

BY THE REV. ANDREW BURNABY, D.D.

Archdeacon of Leicester and Vicar of Greenwich. *

PREFACE TO THE THIRD EDITION.

THE two former Editions of these Travels were published, one immediately after the other, at a moment, when events of the greatest magnitude, and importance to this country, were depending; and when the minds of men were extremely agitated and alarmed for the fate of the British Empire. A rupture between Great Britain and her American Colonies was seriously apprehended: and as men foresaw, or at least fancied they foresaw, very calamitous consequences arising from so disastrous an event, it was generally wished that the evil might, if possible, be prevented; and a reconciliation happily effected, before matters were carried to extremity. The author, flattered by his friends, and perhaps a little also by vanity, presumed to hope, that the publication of his tour through the Middle Settlements in North America might, in some degree, conduce to this desirable end: and as the measures to be adopted by Government were at that time under the deliberation of Parliament, it was thought expedient to submit it to the public, before any resolutions were formed that might eventually be decisive of the fate of the British Empire. There was not time, therefore, to publish the work in so full and correct a manner, as the materials in the author's possession would otherwise have enabled him to do. He confined himself to general, and what he judged leading, circumstances; and postponed the insertion of others to more favourable and tranquil times. The two former editions, however, being now entirely out of print, he deems it expedient to publish a third edition, revised, corrected, and greatly enlarged by the insertion of new matter; particularly by several statistical tables referring to the commerce of America; and some authentic memoirs of Thomas late Lord Fairfax, and of the several branches of that noble house now domiciliated in Virginia; both of which have been derived from the best and most unquestionable authority.—The work for these reasons, and from its being almost the only account of the Middle Settlements, during the period of their happiest and most flourishing state, may possibly, notwithstanding the separation that has since taken place, be still interesting; at least to individuals: and the author offers the present edition to the public, with the same assurance as he did the former ones; viz. that he believes the contents to be

* Edition 3. London, 1798, 4to.

strictly and literally true. If, however, some slight errors may accidentally and undesignedly have been committed, and any one will have the goodness to point them out, the author will think himself highly obliged by the information, and will avail himself of the first opportunity to acknowledge and correct them.

The astonishing events that have taken place since the publication of the two former editions, will probably expose the author's opinion concerning the termination and final issue of the American contest to animadversion: but in vindication of himself, he must be permitted to observe,—

That it was not within the sphere of calculation to suppose,

1st. That the British ministry would persist in requiring unconditional submission from the colonies, till it was too late to recede; and the opportunity was lost, and for ever gone by:

2dly. That when coercive measures had been resolved upon, they would have been enforced in so ruinous and so ineffectual a manner:

3dly. That, during the war, any member in opposition would have declared publicly, that he corresponded with, and wished success to, the Americans, then in arms against the king:

Still less was it within the sphere of calculation to suppose,

That France, though it might be expected that she would so far interfere in the contest as to endeavour to distress and embarrass this country, would send troops to America, to the irreparable ruin of her own finances, in order to make the Americans free and independent states.

Least of all was it within the sphere of calculation to suppose,

That Spain would join in a plan inevitably leading, though by slow and imperceptible steps, to the final loss of all her rich possessions in South America.

There were indeed enlightened minds both in France and in Spain, who foresaw what has since happened, and who deprecated any interference in the dispute, and recommended the observance of a strict neutrality: And the unfortunate Lewis the sixteenth himself is said to have shewn the greatest repugnance to the treaty with the Americans; and to have declared in the bitterness of sorrow, when he signed it, that he had signed the warrant for his own ruin and destruction.

In August 1792, the author was at Cologne; and there accidentally falling in with the Duke of Bourbon, and several French noblemen of his suite, the conversation naturally turned upon the situation and affairs of France; and the author expressing his surprise at the impolicy of the French ministry in engaging so deeply in the American war, and deducing from thence the present miseries of France, one of the courtiers with great emotion exclaimed,—“Ah monsieur, c'est bien vrai; nous avons mal calculé!”—But the die is cast, and it is too late to moralize.

The reader will doubtless be surprised, when the author declares, that he has not altered his sentiments since the year 1775, in regard to the American war and its consequences. He still thinks, that the separation might, in the first instance, have been prevented: that coercive measures, when resolved upon, might have been enforced, comparatively speaking, without bloodshed; and with great probability of success: that the present union of the American states will not be permanent or last for any considerable length of time: that that extensive country must necessarily be divided into separate states and kingdoms: and that America will never, at least for many ages, become formidable to Europe; or acquire, what has been so frequently predicted, universal empire. The author thinks he could assign plausible reasons at least for these various opinions; but it is better that they should be consigned to oblivion. The wise Disposer of events has decreed, that America shall be independent of Great Britain: that she is

so, may ultimately perhaps be advantageous to both countries ; at least it will be owing to excess of folly if it be highly disadvantageous to either. Let us supplicate Heaven to unite them in permanent friendship and affection ; and to preserve inviolate that alliance, that harmony and connexion, which religion, moral habits, language, interest, origin, and innumerable other considerations, can never cease to point out and recommend to them.

INTRODUCTION.

A FEW days before I embarked for America, being in a coffee-house with some friends, and discoursing of things relative to that country, an elderly gentleman advancing towards the box where we were sitting, addressed himself to me in the following manner : “ Sir,” said he, “ you are young, and just entering into the world ; I am old, and upon the point of leaving it : allow me therefore to give you one piece of advice, which is the result of experience ; and which may possibly, some time or other, be of use to you. You are going to a country where every thing will appear new and wonderful to you ; but it will appear so only for a while ; for the novelty of it will daily wear off ; and in time it will grow quite familiar to you. Let me, therefore, recommend to you to note in your pocket-book every circumstance that may make an impression upon you ; for be assured, sir, though it may afterward appear familiar and uninteresting to yourself, it will not appear so to your friends, who have never visited that country, for they will be entertained by it.”

The following observations were the result of this advice : they were written upon the several spots to which they refer ; and were intended for no other purpose, than that of serving as memorandums. They appeared, by the time I returned to Europe, according to the gentleman's prediction, so very familiar to me, that I scarcely thought them deserving of the perusal of my friends. Some of these, however, were so obliging as to bestow upon them that trouble ; and it is by their advice, and the consideration of the present critical situation of affairs, that I now submit them to the judgment of the public. — Whatever may be their merit, which I fear is but small, I can assure the reader of one thing, I believe they are generally true. They are the fruit of the most impartial inquiries, and best intelligence, that I was able to procure in the different colonies which I visited. If I have been led into any error, or have misrepresented any thing, it has been undesignedly : a spirit of party is universally prevalent in America, and it is not always an easy matter to arrive at the knowledge of truth : but I believe, in general, I have been pretty successful. I conversed indiscriminately with persons of all parties ; and endeavoured, by allowing for prejudices and collating their different accounts, to get at the true one. If I have any doubt myself about any particular part of the following observations (and it is one in which I wish I may be found to have been misinformed), it is that which relates to the character of the Rhode Islanders. I was exceedingly ill at that place, and had not the same opportunity of procuring information as elsewhere. I conversed with but few gentlemen, and they were principally of one party ; but they were gentlemen of such universal good character, that I could not but rely in some measure on the accounts with which they favoured me. Some allowance, however, I did make for prejudice ; and I am desirous that the reader should make a still larger one ; indeed, I should be happy to stand corrected in regard to what I have said of that people, as no one can have less pleasure in speaking unfavourably of mankind than myself.

I have

I have studiously avoided all technical or scientific terms; such to the informed reader are unnecessary, to the uninformed one they are unintelligible and perplexing: in relations of this kind, they have always an appearance of affectation and pedantry.

For the most valuable part of the following collection, I mean the Diary * of the Weather, I am entirely indebted to my esteemed friend, Francis Fauquier, Esq. son of the late worthy lieutenant-governor of Virginia; who very obligingly transmitted it to me from Williamsburg, while I resided, as chaplain to the British factory, at Leghorn; and has allowed me to make the use of it which I have here done.

The present unhappy differences subsisting amongst us, with regard to America, will, I am sensible, expose the publication of this account to much censure and criticism; but I can truly aver, that I have been led to it by no party motive whatsoever. My first attachment, as it is natural, is to my native country; my next is to America; and such is my affection for both, that I hope nothing will ever happen to dissolve that union, which is necessary to their common happiness. Let every Englishman and American, but for a moment or two, substitute themselves in each other's place, and, I think, a mode of reconciliation will soon take effect. — Every American will then perceive the reasonableness of acknowledging the supremacy of the British legislature; and every Englishman, perhaps, the hardship of being taxed where there is no representation, or assent.

There is scarcely any such thing, I believe, as a perfect government; and solecisms are to be found in all. The present disputes are seemingly the result of one. — Nothing can be more undeniable than the supremacy of parliament over the most distant branches of the British empire: for although the King being esteemed, in the eye of the law, the original proprietor of all the lands in the kingdom; all lands, upon defect of heirs to succeed to an inheritance, escheat to the King; and all new discovered lands vest in him: yet in neither case can he exempt them from the jurisdiction of the legislature of the kingdom.

He may grant them, under leases or charters, to individuals or companies; with liberty of making rules and regulations for the internal government and improvement of them; but such regulations must ever be consistent with the laws of the kingdom, and subject to their controul.

On the other hand, I am extremely dubious, whether it be consistent with the general principles of liberty (with those of the British constitution I think it is not) to tax where there is no representation: the arguments hitherto adduced from Manchester and Birmingham, and other great towns, not having representatives, are foreign to the subject; at least they are by no means equal to it; — for every inhabitant, possessed of forty shillings freehold, has a vote in the election of members for the county: but it is not the persons, but the property of men that is taxed, and there is not a foot of property in this kingdom, that is not represented.

It appears then, that certain principles exist in the British constitution, which militate with each other; the reason of their doing so is evident; it was never supposed that they would extend beyond the limits of Great Britain, or affect so distant a country as America. It is much to be wished, therefore, that some expedient could be thought of to reconcile them.

The conduct of the several administrations, that have had the direction of the affairs of this kingdom, has been reciprocally arraigned; but, I think, without reason; for,

* See Appendix, No. 5. [Orig. Edit.]

all things considered, an impartial and dispassionate mind will find many excuses to alledge in justification of each. — The fewest, I am afraid, are to be pleaded in favour of the Americans; for they settled in America under charters, which expressly reserved to the British parliament the authority, whether consistent or not consistent, now asserted. Although, therefore, they had a right to make humble representations to His Majesty in parliament, and to shew the impropriety and inconvenience of enforcing such principles, yet they had certainly no right to oppose them.

Expedients may still be found, it is to be hoped, however, to conciliate the present unhappy differences, and restore harmony again between Great Britain and her colonies; but whatever measures may be adopted by parliament, it is the duty and interest of America to submit. — But it is impertinent to enter any farther into the discussion of a subject, which is at this time under the deliberation of the supreme council of the nation. I will therefore conclude with a sincere prayer, that whatever measures may be adopted, they may be different in their issue from what the fears of men generally lead them to preconceive; and that, if they be coercive ones, they may be enforced, which, I am persuaded, is practicable, without the effusion of blood: if lenient ones, which are preferable, and which I think equally practicable, conceded without any loss or diminution of the dignity or interest of this kingdom.

Greenwich,
Jan. 23. 1775.

BURNABY'S TRAVELS.

ON Friday the 27th of April 1759, I embarked, in company with several North American gentlemen, on board the Dispatch, Captain Necks, for Virginia; and the next day we set sail from Spithead, under convoy of His Majesty's ship the Lynn, Captain Sterling, commander, with thirty-three sail of trading vessels. We came to an anchor in the evening in Yarmouth Road, and the next day sailed with a fresh easterly wind through the Needles.

April 30. We passed by the Lizard, and in the evening discovered a sail, which proved to be an English sloop laden with corn. She had been taken by a French privateer, and was steering for France: there were three Frenchmen and one Englishman on board. The commodore sent some hands to her, with orders to carry her to Penzance.

May 1. Thick, hazy weather with a fair wind. A large ship passed through the fleet about four o'clock in the afternoon: and in the evening another vessel bore down upon the sternmost ships, and spoke with them.

May 2. Fair, pleasant weather. The next day we found by our reckoning that we had made a hundred leagues from the Land's End.

May 4. Strong, violent gales at north-and-by-west. In the evening the Molly, Captain Chew, had her main-top-mast carried away, and hoisted a signal of distress.

May 5. From this time to the 14th, nothing remarkable happened: the wind was seldom fair; but the weather being moderate, we made frequent visits, and passed our time very agreeably.

May 14. Captain Necks fell ill of a fever, and continued indisposed several days: he began to mend about the 17th.

May 19. In the afternoon, a sudden and violent squall from the north-west obliged us to lye-to under our reefed main-sail: it continued to increase, and blew a storm for about thirty-six hours, when it began to moderate.

May 21. We made sail in the afternoon, with four ships in company; and the next day in the evening were joined by eighteen more. From that time to the 28th, nothing remarkable happened: we had generally pleasant weather, but adverse winds. We frequently visited; and were much entertained with seeing grampuses, turtles, bonetas, porpoises, flying and other fish, common in the Atlantic.

May 28. We discovered a large sail: she directed her course towards the east. We supposed her to be an English man of war going express. She carried three top-gallant sails.

May 31. We spoke with a sloop bound from Antigua to London. She acquainted the commodore with the agreeable news of His Majesty's forces at Guadaloupe having reduced that whole island under subjection to the British government. The wind still continued unfavourable.

June 5. We spoke with a snow from Carolina, which informed the commodore, that a French frigate was cruising off the Capes of Virginia. From that time to the 11th, we had nothing remarkable. The wind was generally from west to north-west, and there were frequent squalls with lightning. We saw several bonetas, grampuses, albigores, and fish of different kinds.

June 11. The water appeared discoloured; and we concluded that we were upon the Banks of Newfoundland: we cast the lead, but found no ground. The weather was thick and hazy. Nothing remarkable happened from this time to the 3d of July: we had pleasant weather, though now and then squalls with lightning. We fell in with several currents and had variable winds.

July 3. We had fine weather, with a gentle breeze at north-west. We were now, according to the commodore's reckoning, (which we afterward found to be true) about sixty leagues from land. The air was richly scented with the fragrance of the pine-trees.

July 4. We saw a great many sloops, from whence we imagined that we were near the coast. The wind was at east-by-north.

July 5. About six in the morning we caught some green fish: upon this we sounded, and found eighteen fathom water. At ten we discovered land, which proved to be Cape Charles; and about three hours afterward sailed through the capes into Chesapeak Bay. The commodore took his leave to go upon a cruise; and at eight in the evening we came to an anchor in York river, after a tedious and disagreeable voyage of almost ten weeks.

The next morning, having hired a chaise at York, a small inconsiderable town, I went to Williamsburg, about twelve miles distant. The road is exceedingly pleasant, through some of the finest tobacco plantations* in North America, with a beautiful view of the river and woods of great extent.

Williamsburg

* The tobacco growing upon York river, is esteemed superior to any other in North America; particularly that which is raised upon the plantations belonging to Colonel Edward Diggs, which is said to have a flavour excelling all others. Of the growth of one plantation, distinguished from the rest, the tobacco is in such highest imation, that Colonel Diggs puts upon every hogshead in which it is packed, the initials of his name; and it is from thence called the E. D. tobacco, and sells for a proportionably higher price.

Some

Williamsburg is the capital of Virginia: it is situated between two creeks; one falling into James, the other into York river; and is built nearly due east and west. The distance of each landing-place is something more than a mile from the town; which, with the disadvantage of not being able to bring up large vessels, is the reason of its not having increased so fast as might have been expected. It consists of about two hundred houses, does not contain more than one thousand souls, whites and negroes; and is far from being a place of any consequence. It is regularly laid out in parallel streets, intersected by others at right angles; has a handsome square in the center, through which runs the principal street, one of the most spacious in North America, three quarters of a mile in length, and above a hundred feet wide. At the opposite ends of this street are two public buildings, the college and the capitol; and although the houses are of wood, covered with shingles*, and but indifferently built, the whole makes a handsome appearance. There are few public edifices that deserve to be taken notice of; those, which I have mentioned, are the principal; and they are far from being magnificent. The governor's palace is tolerably good, one of the best upon the continent; but the church, the prison, and the other buildings, are all of them extremely indifferent. The streets are not paved, and are consequently very dusty, the soil hereabout consisting chiefly of sand: however, the situation of Williamsburg has one advantage, which few or no places in these lower parts have; that of being free from musquitoes. Upon the whole, it is an agreeable residence; there are ten or twelve gentlemen's families constantly residing in it, besides merchants and tradesmen; and at the times of the assemblies, and general courts, it is crowded with the gentry of the country: on those occasions there are balls and other amusements; but as soon as the business is finished, they return to their plantations; and the town is in a manner deserted†.

The situation of Virginia (according to Evans's map) is between the 36th and 40th degree of north latitude, and about 76 degrees west longitude from London‡. It is bounded on the north by the river Potowmac, on the east by the Atlantic Ocean, by Carolina on the south, and, to include only what is inhabited, by the great Alleghenny on the west.

Some time ago, Colonel Diggs having a tract of land, seemingly of the same quality, and under the same exposure and aspect as the plantation producing the E. D. tobacco, from which it was separated only by a small rill of water, he directed it to be planted; and as the produce was apparently similar in quality, colour, flavour, and every other particular, he thought himself warranted to delineate E. D. upon the hogheads in which it was packed. Accordingly, it was sent to market with this recommendatory mark or token. But some time after, he received a letter from his factor or merchant in London, informing him that his inspector or agent had been guilty of some great oversight or error, as the tobacco contained in certain casks, which he specified, though marked with E. D., was of a different and very inferior quality to that commodity; and that if the same fault should be again committed, it would ruin the reputation and sale of the E. D. tobacco. It is to be observed, that the soil or mould had been carefully analysed and examined previous to its being planted; and that not the smallest difference could be perceived between that of the old and new plantation. The experiment, it will easily be believed, was not repeated.

* These are formed in the shape of tiles, and are generally made of white cedar or of cypresses.

† Since the revolution, the seat of government has been removed to Richmond, a town situated just below the falls of James river.

‡ Mr. Ebeling, of Hamburgh, in a note to the German translation of this work, says, "Virginia is situated between 37 and 40 degrees of north latitude, and extends from 77 to 81 degrees west longitude from London;" but I believe he is mistaken, for the latest and best maps generally agree with Mr. Evans in regard to the situation he has given to this country; at least, they approximate nearer to the account here given than to that of Mr. Ebeling.

The climate is extremely fine, though subject to violent heats in the summer: Fahrenheit's thermometer being generally for three months from 85 to 95 degrees high. The other seasons, however, make ample amends for this inconvenience: for the autumns and springs are delightful; and the winters are so mild and serene (though there are now and then excessively cold days) as scarcely to require a fire. The only complaint that a person can reasonably make, is, of the very sudden changes to which the weather is liable; for this being entirely regulated by the winds, is exceedingly variable. Southerly winds are productive of heat, northerly of cold, and easterly of rain; whence it is no uncommon thing for the thermometer to fall many degrees in a very few hours; and, after a warm day, to have such severe cold, as to freeze over a river a mile broad in one night's time*. In summer there are frequent and violent gusts, with thunder and lightning; but as the country is very thinly inhabited, and most of the gentry have electrical rods to their houses, they are not attended with many fatal accidents. Now and then, indeed, some of the negroes lose their lives; and it is not uncommon in the woods, to see trees torn and riven to pieces by their fury and violence. A remarkable circumstance happened some years ago at York, which is well attested: a person standing at his door during a thunder gust, was unfortunately killed; there was an intermediate tree at some distance, which was struck at the same time; and when they came to examine the body, they found the tree delineated upon it in miniature. Part of the body was livid, but that which was covered by the tree was of its natural colour†.

I believe no country has more certainly proved the efficacy of electrical rods, than this: before the discovery of them, these gusts were frequently productive of melancholy consequences; but now it is rare to hear of such instances. It is observable that no house was ever struck, where they were fixed; and although it has frequently happened that the rods themselves have been melted, or broken to pieces, and the houses scorched or discoloured along the sides of them, which manifested that they had received the stroke, but that the quantity of lightning was too great to be carried off by the conductor, yet never has any misfortune happened; such a direction having been given to the lightning, as to prevent any danger or ill consequence. These circumstances, one would imagine, should induce every person to get over those prejudices which many have entertained; and to consider the neglect, rather than the use, of them as criminal, since they seem to be means put into our hands by Providence, for our safety and protection.

The soil of Virginia is in general good. There are barrens where the lands produce nothing but pine-trees; but taking the whole tract together, it is certainly fertile. The low grounds upon the rivers and creeks are exceedingly rich, being loam intermingled with sand: and the higher you go up into the country, towards the mountains, the value of the land increases; for it grows more strong, and consists of a deeper clay.

Virginia, in its natural state, produces great quantities of fruits and medicinal plants, with trees and flowers of infinitely various kinds. Tobacco and Indian corn are the original produce of the country; likewise the pigeon-berry, and rattle-snake-root so

* On the 19th of December, 1759, being upon a visit to Colonel Washington, at Mount-Vernon, upon the river Potowmac, where the river is two miles broad, I was greatly surprised to find it entirely frozen over in the space of one night, when the preceding day had been mild and temperate.

† I have related this circumstance upon the authority of the honourable John Blair, President of the Council of Virginia, who mentioned it as a well-known fact: but it appears so improbable and unphilosophical, that I do not pledge myself for the truth of it.

esteemed in all ulcerous and pleuritical complaints: grapes, strawberries, hickory nuts, mulberries, chefnuts, and several other fruits, grow wild and spontaneously.

Besides trees and flowers of an ordinary nature, the woods produce myrtles, cedars, cypresses, sugar-trees, firs of different sorts, and no less than seven or eight kinds of oak; they are likewise adorned and beautified with red-flowering maples, sassafras-trees, dog-woods, acacias, red-buds, scarlet-flowering chefnuts, fringe-trees, flowering poplars, umbrellas, magnolias, yellow jasmynes, chamoedaphnes, pacoons, atamuscillies, May-apples, and innumerable other sorts; so that one may reasonably assert that no country ever appeared with greater elegance or beauty.

Not to notice too the almost numberless creeks and rivulets which every where abound, it is watered by four large rivers of such safe navigation, and such noble and majestic appearance, as cannot be exceeded, perhaps, in the whole known world.

James river, which was formerly called Powhatan, from its having been the seat of that emperor, is seven miles broad at the mouth, navigable to the falls (above 150 miles) for vessels of large burden, and thence to the mountains for small craft and canoes.

The falls are in length about six or seven miles: they consist of innumerable breaks of water, owing to the obstruction of the current by an infinite number of rocks, which are scattered over the bed of the river; and form a most picturesque and beautiful cascade.

The honourable Colonel Byrd has a small place called Belvedere, upon a hill at the lower end of these falls, as romantic and elegant as any thing I have ever seen. It is situated very high, and commands a fine prospect of the river, which is half a mile broad, forming cataracts in the manner above described; there are several little islands scattered carelessly about, very rocky, and covered with trees; and two or three villages * in view at a small distance. Over all these you discover a prodigious extent of wilderness, and the river winding majestically along through the midst of it.

York river, for about forty miles, to a place called West Point, is confined in one channel about two miles broad: it flows in a very direct course, making but one angle, and that an inconsiderable one, during the whole way. At West Point it forks, and divides itself into two branches; the southward called Pamunky; the northward Matapony: each of these branches, including the windings and meanders of the river, is navigable seventy or eighty miles, and a considerable way of this space for large ships.

The Rappahannoc is navigable to the falls, which are a mile above Fredericksburg, and about 110 from the bay. Vessels of large burden may come up to this place; and small craft and canoes may be carried up much higher.

The Potowmac is one of the finest rivers in North America: it is † ten miles broad at the mouth, navigable above 200 miles, to Alexandria, for men of war; and, allowing for a few carrying places, for canoes above 200 farther, to the very branches of the Ohio. Colonel Bouquet, a Swiss gentleman in the Royal Americans, came down this autumn from Fort Cumberland ‡ to Shenando with very little difficulty;

* Amongst the rest, Richmond, the present seat of government.

† The Potowmac, according to Mr. Jefferson, is only seven and a half miles broad at its mouth, and perhaps his account may be founded upon better authority than my own. I had no opportunity of ascertaining the fact, and the statement which I have made rests entirely upon the credibility of those Virginian gentlemen, who favoured me with the information, and who, I am persuaded, did not intentionally mislead me; though it is possible they might be mistaken.

‡ The distance from Fort Cumberland to Shenando is above 100 miles; from Shenando to the great falls about 60; and from the great falls to Alexandria about 17 or 18.

whence

whence to the great falls, I have been told, a navigation might easily be effected : so that this river seems to promise to be of as great consequence as any in North America.

In all these rivers the tide flows as far as the falls, and at Alexandria it rises between two and three feet. They discharge themselves into Chesapeak Bay, one of the finest in the world, which runs a great way up the country into Maryland ; is from ten to twenty miles broad ; navigable near a hundred leagues for vessels of almost any burden ; and receives into its bosom at least twenty great rivers.

These waters are stored with incredible quantities of fish, such as sheeps-heads, rock-fish, drums, white perch, herrings, oysters, crabs, and several other sorts. Sturgeon and shad are in such prodigious numbers, that one day, within the space of two miles only, some gentlemen in canoes, caught above 600 of the former with hooks, which they let down to the bottom, and drew up at a venture when they perceived them to rub against a fish ; and of the latter above 5,000 have been caught at one single haul of the seine.

In the mountains there are very rich veins of ore ; some mines having been already opened which turn to great account ; particularly Spotswood's iron mines upon the Rappahannoc, out of which they smelt annually above six hundred ton : and one of copper upon the Roanoke, belonging to Colonel Chiswell. This last mentioned gentleman is also going to try for lead upon some hunting grounds belonging to the Indians, towards New River, and the Green Briar ; where, it is said, there is fine ore, and in great plenty, lying above ground. Some coal mines have also been opened upon James river near the falls, which are likely to answer very well.

The forests abound with plenty of game of various kinds ; hares, turkies, pheasants, woodcocks, and partridges, are in the greatest abundance. In the marshes are found foruses, a particular species of bird, more exquisitely delicious than the ortolan ; snipes also, and ducks of various kinds. The American shell-drake and blue-wing exceed all of the duck kind whatsoever ; and these are in prodigious numbers. In the woods there are variety of birds remarkable both for singing and for beauty ; of which are the mocking-bird, the red-bird or nightingale, the blue-bird, the yellow-bird, the humming-bird *, the Baltimore bird, the summer-duck, the turtle, and several other sorts.

Insects and reptiles are almost innumerable. The variety of butterflies is not greater than is that of the rich and vivid colours with which each particular species is distinguished and beautified ; and such is the number and appearance of the fire-flies, that on a summer's evening the whole air seems to glow and to be enlightened by them. Several snakes of this country are harmless and beautiful ; such as the black snake, the wampum-snake, the bead-snake, the garter-snake, and some others ; but the rattle-snake and vipers are exceedingly venomous and deadly. There are two curious species of frogs here : one is called the bull-frog, which is prodigiously large, and makes so loud a noise, that it may be heard at a great distance ; the other is a small green frog, which sits upon the boughs of trees, and is found in almost every garden.

* The humming-bird is the smallest and most beautiful of all the feathered race : its colours are green, crimson, and gold : it lives chiefly by suction upon the sweets and essences of flowers ; and nothing can be more curious than to observe numbers of them in gardens, where there are honey-suckles or trumpet-flowers, flying from flower to flower, putting their slender bills into every one, and sucking out the sweetest juices. The motion of their wings is incredibly swift, and produces a humming noise, not unlike that of a large humble bee. They are frequently kept in cages, but seldom live longer than two months. The food which is given them, is either honey or sugar, mixed with water. Repeated attempts have been made to send them alive to England, but always without success.

Of quadrupeds there are various kinds; squirrels of four or five different species*; opossums, racoons, foxes, beavers, and deer; and in the deserts and uninhabited parts, wolves, bears, panthers, elks or moose deer, buffaloes, mountain-cats, and various other sorts. Such are in general the natural productions of this country.

Viewed and considered as a settlement, Virginia is far from being arrived at that perfection of which it is capable. Not a tenth of the land is yet cultivated: and that which is cultivated, is far from being so in the most advantageous manner. It produces, however, considerable quantities of grain and cattle, and fruit of many kinds. The Virginian pork is said to be superior in flavour to any in the world; but the sheep and horned cattle being small and lean, the meat of them is inferior to that of Great Britain, or indeed, of most parts of Europe. The horses are fleet and beautiful; and the gentlemen of Virginia, who are exceedingly fond of horse-racing, have spared no expence or trouble to improve the breed of them by importing great numbers from England.

The fruits introduced here from Europe succeed extremely well; particularly peaches, which have a very fine flavour, and grow in such plenty as to serve to feed the hogs in the autumn of the year. Their blossoms in the spring make a beautiful appearance throughout the country.

Virginia is divided into fifty-two counties, and seventy-seven parishes, and by act of assembly there ought to be forty-four towns†; but one half of these have not more than five houses; and the other half are little better than inconsiderable villages. This is owing to the cheapness of land, and the commodiousness of navigation: for every person may with ease procure a small plantation, can ship his tobacco at his own door, and live independent. When the colony shall come to be more thickly seated, and land grow dear, people will be obliged to follow trades and manufactures, which will necessarily make towns and large cities; but this seems remote, and not likely to happen for some centuries.

The inhabitants are supposed to be in number between two and three hundred thousand. There are a hundred and five thousand tytheables, under which denomination are included all white males from sixteen to sixty; and all negroes whatsoever within the same age. The former are obliged to serve in the militia, and amount to forty thousand.

The trade of this colony is large and extensive. Tobacco is the principal article of it. Of this they export annually between fifty and sixty thousand hogsheds, each hogshed weighing eight hundred or a thousand weight: some years they export much more‡. They ship also for the Madeiras, the Streights, and the West-Indies, several articles, such as grain, pork, lumber, and cyder: to Great Britain, bar-iron, indigo, and a small quantity of ginseng, though of an inferior quality; and they clear out one year with another about ton of shipping.

* Of the several species of squirrels, the ground and flying-squirrels are much the smallest and most beautiful. The former are of a dusky orange hue, streaked with black; the latter grey or ash-coloured, and elegantly formed. These have a spreading or fan-tail, and two membranes adhering to their sides; which, when they spring or leap from a tree, they expand, and are thereby enabled to fly through a considerable space. The former are of a very wild nature; but these may be easily, and are frequently tamed.—There is a species of pole-cat in this part of America, which is commonly called a skunk. This animal, when pursued, or assailed by its enemy, ejects its urine; which emits such a fetid and insupportable stench, as almost to stifle and suffocate whatever is within the reach of it.

† These numbers have been since greatly increased.

‡ In the year 1758, it is said that seventy thousand hogsheds were exported.

Their manufactures are very inconsiderable. They make a kind of cotton-cloth, with which they clothe themselves in common, and call after the name of their country; and some inconsiderable quantities of linen, hose, and other trifling articles; but nothing to deserve attention.

The government is a royal one: the legislature consisting of a governor appointed by the king; a council of twelve persons, under the same nomination; and a house of burgesses, or representatives, of a hundred and eight or ten members, elected by the people; two for each county, and one for each of the following places, viz. the College of William and Mary, James-town, Norfolk-borough, and Williamsburg. Each branch has a negative. All laws, in order to be permanent, must have the King's approbation; nor may any be enacted, which are repugnant to the laws of Great Britain.

The courts of judicature are either county, or general courts. The county courts are held monthly in each county, at a place assigned for that purpose, by the justices thereof; four of them making a quorum. They are appointed by the governor, and take cognizance of all causes at common law, or in chancery, within their respective counties, except criminal ones, punishable with loss of life, or member. This power they are not permitted to exercise except over negroes and slaves, and then not without a special commission from the governor for each particular purpose*. The general court is held twice a year at Williamsburg. It consists of the governor and council, any five of which make a court. They hear and determine all causes whatsoever, ecclesiastical or civil, and sit four-and-twenty days: the first five of these are for hearing and determining suits in chancery, appeals from the decrees of the county or inferior courts in chancery; and writs of superseatas to such decrees. The other days are for trying suits or prosecutions in behalf of the King; and all other matters depending in the said court: appeals are allowed to the King in council, in cases of 500l. sterling value. The governor has a power of pardoning criminals in all cases, except of treason or murder: and then he can only reprieve till he knows the King's pleasure.

The established religion is that of the church of England; and there are very few Dissenters of any denomination in this province. There are at present between sixty and seventy clergymen: men in general of sober and exemplary lives. They have each a glebe of two or three hundred acres of land, a house, and a salary established by law of 16,000 weight of tobacco, with an allowance of 1,700 more for shrinkage. This is delivered to them in hogsheds ready packed for exportation, at the most convenient warehouse. The presentation of livings is in the hands of the vestry; which is a standing body of twelve members, invested with the sole power of raising levies, settling the repairs of the church, and regulating other parochial business. They were originally elected by the people of the several parishes; but now fill up

* How necessary it may be that they should have such a power, even in this case, I will not pretend to say; but the law which transfers it to them seems so inconsistent with the natural rights of mankind, that I cannot but in pity to humanity recite it.

"Every slave committing any offence, by law punishable by death, or loss of member, shall be committed to the county gaol, and the sheriff of the county shall forthwith certify such commitment, with the cause thereof to the governor, or commander in chief, who may issue a commission of oyer and terminer to such persons as he shall think fit, which persons, forthwith after the receipt of such commission, shall cause the offender to be publicly arraigned and tried at the court-house of the said county, and take for evidence the confession of the offender, the oath of one or more credible witnesses, or such testimony of negroes, mulattoes, or Indians, bond or free, with pregnant circumstances as to them shall seem convincing, *without the solemnity of a jury*, and the offender being found guilty, shall pass such judgment upon him or her as the law directs for the like crimes, and on such judgment award execution."

Mercer's Abridgment of the Virginian Laws, p. 342.

vacancies themselves. If the vestry does not present to a living in less than twelve months, it lapses to the governor. The diocesan is the bishop of London; who has a power of appointing a commissary to preside over, and convene the clergy on particular occasions; and to censure, or even suspend them, in cases of neglect or immorality. His salary is 100*l.* sterling per annum; and he is generally of the council, which is of equal emolument to him*.

An unhappy disagreement has lately arisen between the clergy and the laity, which, it is to be feared, may be of serious consequence. The cause of it was this. Tobacco being extremely scarce from a general failure of the crop, the assembly passed an act to oblige the clergy and all public officers to receive their stipends in money instead of tobacco. This the clergy remonstrated against, alledging the hardship of being obliged to take a small price for their tobacco, when it bore an extravagant one; seeing they never had any kind of compensation allowed, when it was so plentiful as to be almost a drug. They sent over an agent to England, and the law was repealed. This greatly exasperated the people; and such is their mutual animosity at this time, that I fear it will not easily subside, or be forgotten.

With regard to the law in question, it was certainly a very hard one; and I doubt whether, upon principles of free government, it can be justified; or whether the assembly can legally interpose any farther, than in cases of necessity, to oblige the clergy to receive their salaries in money instead of tobacco, at the current price of tobacco. They may, I am persuaded, in cases of exigency, always make, and might then have made, such a law, without any considerable detriment to the colony; for supposing the price of tobacco to be what it was at that time, about fifty shillings currency per hundred, what would the whole sum be, were the clergy to be paid *ad valorem*? Not 20,000*l.* sterling. There are in Virginia, as I observed before, about sixty-five clergymen: each of these is allowed 16,000 weight of tobacco; which, at the rate of fifty shillings currency per hundred, amounts to 400*l.*; 400*l.* multiplied by 65, is equal to 26,000; which, allowing 40 per cent. discount, the difference of exchange is about 18,571*l.* sterling. Now what is this sum to such a colony as Virginia? But to this it will be said, perhaps, why should the clergy be gainers in a time of public distress, when every one else is a sufferer? The clergy will doubtless reply, and why should the clergy be the only sufferers in plentiful seasons, when all but themselves are gainers? However, as on the one hand I disapprove of the proceedings of the assembly in this affair; so, on the other, I cannot approve of the steps which were taken by the clergy: that violence of temper; that disrespectful behaviour towards the governor; that unworthy treatment of their commissary; and, to mention nothing else, that confusion of proceeding in the convention, of which some, though not the majority, as has been invidiously represented, were guilty; these things were surely unbecoming the sacred character they are invested with; and the moderation of those persons, who ought in all things to imitate the conduct of their divine Master. If, instead of flying out in invectives against the legislature; of accusing the governor of having given up the cause of religion by passing the bill; when, in fact, had he rejected it, he would never have been able to have got any supplies during the course of the war, though ever so much wanted; if, instead of charging the commissary with want of zeal for having exhorted them to moderate measures, they had followed the prudent counsels

* The commissary is commonly president of the college, and has the Parish of Williamsburg, or some other lucrative parish, which render him about 350*l.* a year: so that his annual income is between 500 and 600*l.*

of that excellent man, and had acted with more temper and moderation, they might, I am persuaded, in a very short time, have obtained any redress they could reasonably have desired. The people in general were extremely well affected towards the clergy, and had expressed their regard for them in several instances; they were sensible, moreover, that their salaries were too scanty to support them with dignity, and there had been some talk about raising them: had the clergy therefore, before they applied to England, only offered a memorial to the assembly, setting forth that they thought the act extremely hard upon them, as their salaries were small; and that they hoped the assembly would take their case into consideration, and enable them to live with that decency which became their character; I am persuaded, from the knowledge which I have of the people in general, and from repeated conversations with several members of the assembly, that they might have obtained almost any thing they could have wished; if not, they undoubtedly would have had reason to appeal. But, instead of this, without applying to the assembly for relief, after the act was passed, (for before, indeed, some of them did apply to the speaker in private) they flew out into the most violent invectives, immediately sent over an agent to England, and appealed to His Majesty in council. The result has been already related.

The progress of arts and sciences in this colony has been very inconsiderable: the college of William and Mary is the only public place of education, and this has by no means answered the design of its institution. It has a foundation for a president and six professors. The business of the president is to superintend the whole, and to read four theological lectures annually. He has a handsome house to live in, and 200*l.* sterling per annum. The professor of the Indian school has 60*l.* sterling, and a house also; his business is to instruct the Indians in reading, writing, and the principles of the Christian religion: this pious institution was set on foot and promoted by the excellent Mr. Boyle. The professor of humanity has the care of instructing the students in classical learning: he has an usher or assistant under him. The four other professors teach moral philosophy, metaphysics, mathematics, and divinity. Each of the professors has apartments in the college, and a salary of about eighty pounds per annum*. The present chancellor of the college is the bishop of London.

From what has been said of this colony, it will not be difficult to form an idea of the character† of its inhabitants. The climate and external appearance of the country conspire to make them indolent, easy, and good-natured; extremely fond of society, and much given to convivial pleasures. In consequence of this, they seldom show any spirit of enterprize, or expose themselves willingly to fatigue. Their authority over their slaves renders them vain and imperious, and entire strangers to that elegance of sentiment, which is so peculiarly characteristic of refined and polished nations. Their ignorance of mankind and of learning, exposes them to many errors and prejudices, especially in regard to Indians and negroes, whom they scarcely consider as of the

* They have since been raised, I believe, to 100*l.*

† General characters are always liable to many exceptions. In Virginia, I have had the pleasure to know several gentlemen adorned with many virtues and accomplishments, to whom the following description is by no means applicable. Amongst others, I cannot resist the inclination of mentioning George Wyth Esquire, who, to a perfect knowledge of the Greek language, which was taught him by his mother in the back woods, and of the ancient, particularly the Platonic philosophy, had joined such a profound reverence for the Supreme Being, such respect for the divine laws, such philanthropy for mankind, such simplicity of manners, and such inflexible rectitude and integrity of principle, as would have dignified a Roman senator, even in the most virtuous times of the republic.—This gentleman is, I believe, still living.

human species; so that it is almost impossible, in cases of violence, or even murder, committed upon those unhappy people by any of the planters, to have the delinquents brought to justice: for either the grand jury refuse to find the bill, or the petit jury bring in their verdict, not guilty*.

The display of a character thus constituted, will naturally be in acts of extravagance, ostentation, and a disregard of œconomy; it is not extraordinary, therefore, that the Virginians out-run their incomes; and that having involved themselves in difficulties, they are frequently tempted to raise money by bills of exchange, which they know will be returned protested, with ten per cent. interest†.

The public or political character of the Virginians corresponds with their private one: they are haughty and jealous of their liberties, impatient of restraint, and can scarcely bear the thought of being controuled by any superior power. Many of them consider the colonies as independent states, not connected with Great Britain, otherwise than by having the same common King, and being bound to her by natural affection. There are but few of them that have a turn for business, and even those are by no means expert at it. I have known them, upon a very urgent occasion, vote the relief of a garrison, without once considering whether the thing was practicable, when it was most evidently and demonstrably otherwise‡. In matters of commerce they are igno-

* There are two laws in this colony, which make it almost impossible to convict a planter or white man of the death of a negroe or Indian. By the first it is enacted, that "if any slave shall die by reason of any stroke or blow, given in correction by his or her owner, or by reason of any accidental blow whatsoever, given by such owner; no person concerned in such correction, or accidental homicide, shall undergo any prosecution or punishment for the same; unless, upon examination before the county court, it shall be proved by the oath of one lawful and credible witness, at least, that such slave was killed wilfully, maliciously, and designedly; nor shall any person indicted for the murder of a slave, and upon trial found guilty only of manslaughter, incur any forfeiture or punishment for such offence or misfortune." See Mercer's Abridgment, p. 345. By the second, "No negroe, mulatto, or Indian, can be admitted into any court, or before any magistrate, to be sworn as a witness, or give evidence in any cause whatsoever, except upon the trial of a slave for a capital offence." Mercer's Abridgment, p. 419.

† By an act of assembly, if any bill of exchange is drawn for the payment of any sum of money, and such bill is protested for non-acceptance or non-payment, it carries interest from the date thereof, after the rate of 10 per cent. per annum, until the money be fully satisfied and paid.

A very curious anecdote relative to this law was mentioned to me at Williamsburg, of which I am persuaded the reader will excuse the relation.—An usurer, not satisfied with 5l. per cent. legal interest, refused to advance a sum of money to a gentleman, unless, by way of security, he would give him a bill of exchange that should be returned protested, by which he would be entitled to 10 per cent. The gentleman, who had immediate occasion for money, drew a bill upon a capital merchant in London, with whom he had never had any transaction, or carried on the least correspondence. The merchant, on the receipt of the bill, observing the name of the drawer, very readily honoured it, knowing the gentleman to be a person of great property, and concluding that he meant to enter into correspondence with him. The usurer upon this became entitled to only 5l. per cent. He was exceedingly enraged, therefore, at being, as he supposed, thus tricked: and complained very heavily to the gentleman of his having given him a good bill instead of a bad one.

‡ The garrison here alluded to, was that of Fort Loudoun, in the Cherokee country, consisting of a lieutenant, and about fifty men. This unfortunate party being besieged by the Cherokee Indians, and reduced to the last extremity, sent off runners to the governors of Virginia and Carolina, imploring immediate succour; adding, that it was impossible for them to hold out above twenty days longer. The assembly of Virginia, commiserating their unhappy situation, very readily voted a considerable sum for their relief. With this, troops were to be levied; were to rendezvous upon the frontiers 200 miles distant from Williamsburg; were afterward to proceed to the fort 200 miles farther through a wilderness, where there was no road, no magazines, no posts, either to shelter the sick, or cover a retreat in case of any disaster; so that the unfortunate garrison might as effectually have been succoured from the moon. The author taking notice of these difficulties to one of the members, he frankly replied, "Faith, it is true: but we have had an opportunity at least of showing our loyalty." In a few days after arrived the melancholy news, that this unfortunate party was entirely cut off.

rant of the necessary principles that must prevail between a colony and the mother country; they think it a hardship not to have an unlimited trade to every part of the world. They consider the duties upon their staple as injurious only to themselves; and it is utterly impossible to persuade them that they affect the consumer also. However, to do them justice, the same spirit of generosity prevails here which does in their private character; they never refuse any necessary supplies for the support of government when called upon, and are a generous and loyal people.

The women are, generally speaking, handsome, though not to be compared with our fair country-women in England. They have but few advantages, and consequently are seldom accomplished; this makes them reserved, and unequal to any interesting or refined conversation. They are immoderately fond of dancing, and indeed it is almost the only amusement they partake of: but even in this they discover want of taste and elegance, and seldom appear with that gracefulness and ease, which these movements are calculated to display. Towards the close of an evening, when the company are pretty well tired with country dances, it is usual to dance jiggs; a practice, originally borrowed, I am informed, from the negroes*. These dances are without method or regularity: a gentleman and lady stand up, and dance about the room, one of them retiring, the other pursuing, then perhaps meeting, in an irregular fantastical manner. After some time, another lady gets up, and then the first lady must sit down, she being, as they term it, cut out: the second lady acts the same part which the first did, till somebody cuts her out. The gentlemen perform in the same manner. The Virginian ladies, excepting these amusements, and now and then going upon a party of pleasure into the woods to partake of a Barbacue†, chiefly spend their time in sewing and taking care of their families: they seldom read, or endeavour to improve their minds; however, they are in general good housewives; and though they have not, I think, quite so much tenderness and sensibility as the English ladies, yet they make as good wives, and as good mothers, as any in the world.

It is hard to determine, whether this colony can be called flourishing, or not: because, though it produces great quantities of tobacco and grain, yet there seem to be very few improvements carrying on in it. Great part of Virginia is a wilderness, and as many of the gentlemen are in possession of immense tracts of land, it is likely to continue so. A spirit of enterprize is by no means the turn of the colony, and therefore few attempts have been made to force a trade; which I think might easily be done, both to the West Indies and the Ohio. They have every thing necessary for such an undertaking, viz. lumber, provisions, grain, and every other commodity, which the other colonies, that subsist and grow rich by these means, make use of for exports; but, instead of this, they have only a trifling communication with the West Indies; and as to the Ohio, they have suffered themselves, notwithstanding the superior advantages they might enjoy from having a water carriage almost to the Yoghiogheny, to

* The author has since had an opportunity of observing something similar in Italy. The trefcone of the Tuscans is very like the jiggs of the Virginians.

† Monf. de Willd, in his French translation of these travels, makes the following observation upon the word Barbacue.

“Cet amusement barbare consiste a fouetter les porcs jusqu' a la mort, pour en rendre la chair plus delicate. Je ne sache pas que les cannibales même le pratiquent.”

In justice to the inhabitants of Virginia, I must beg leave to observe, that such a cruel and inhuman act was never, to my knowledge at least, practised in that country. A Barbacue is nothing more than a porket, killed in the usual way, stuffed with spices and other rich ingredients, and baked with Madeira wine. It is esteemed a very great delicacy; and is, I believe, a costly dish.

neglect this valuable branch of commerce; while the industrious Pennsylvanians seize every opportunity, and struggle with innumerable difficulties, to secure it to themselves. The Virginians are content if they can but live but from day to day; they confine themselves almost entirely to the cultivation of tobacco; and if they have but enough of this to pay their merchants in London, and to provide for their pleasures, they are satisfied, and desire nothing more. Some few, indeed, have been rather more enterprising, and have endeavoured to improve their estates by raising indigo, and other schemes: but whether it has been owing to the climate, to their inexperience in these matters, or their want of perseverance, I am unable to determine, but their success has not answered their expectations.

The taxes of this colony are considerable, and the public debt amounts to at least 400,000*l.* currency; this they have been driven into by the war, having seldom had less than a thousand or fifteen hundred provincial troops in pay, exclusive of the expences of some forts. The ways and means employed for raising the money have been generally the same; they have first made an emission of so much paper currency as the exigency required, and then laid a tax for sinking it. This tax has been commonly upon lands and negroes, two shillings for every titheable; and a shilling or eighteenpence upon every hundred acres of land. This mode of taxation has occasioned some divisions in the house, for the owners of large tracts being unable, perhaps, to cultivate a tenth part of their possessions, and every man's real income arising from the number of his negroes, have thought it very hard to pay a tax for what they pretend is of no value to them; but much better arguments may undoubtedly be urged in support of the tax than against it.

The taxes for the present debt are laid till the year sixty-nine, when the whole, if they add nothing more to it, will be discharged. The use of paper currency in this colony has entirely banished from it gold and silver. Indeed the introduction of it was certain in time to produce this effect; but lest it should not, the Virginians fell into a measure, which completed it at once: for by an act of assembly they fixed the exchange between currency and sterling debts at five and twenty per cent. not considering that the real value of their currency could only be regulated by itself. The consequence was, that when from frequent emissions, the difference of exchange between bills upon merchants in London and currency, was 40 per cent. the difference between currency and specie* was only five and twenty. So that the monied men collected all the specie they could, sent it to Philadelphia, where it passed for its real value, purchased bills of exchange with it there, and sold them again in Virginia with fifteen per cent. profit: and this they continued to do till there was not a pistole or a dollar remaining.

During my stay in Virginia, I made several excursions into different parts of the country: one in particular to the great Falls of Potowmac; of which, as I expected to be highly entertained, I kept a journal.

I departed from Williamsburg, Oct. 1. 1759, in company with another gentleman†; and we travelled that day about forty miles, to a plantation‡ in King William

* Fixing the difference between currency and sterling debts, was, in reality, fixing it between currency and specie.

† Col. Bernard Moore.

‡ Belonging to Col. Symes. This gentleman's lady, a very beautiful woman, was said to have just attained her 21st year. She was at that time the mother of seven children, all living. The women in general, in this country, arrive at maturity very early. Some are marriageable at eleven, many at thirteen, and the generality at fourteen or fifteen years of age.

county; beautifully situated upon a high hill, on the north side of Pamunky river, A little below this place stands the Pamunky Indian town; where at present are the few remains of that large tribe; the rest having dwindled away through intemperance and disease. They live in little wigwams or cabins upon the river; and have a very fine tract of land of about 2000 acres, which they are restrained from alienating by act of assembly. Their employment is chiefly hunting or fishing, for the neighbouring gentry. They commonly dress like the Virginians, and I have sometimes mistaken them for the lower sort of that people. The night I spent here, they went out into an adjoining marsh to catch Soruses; and one of them, as I was informed in the morning, caught near a hundred dozen. The manner of taking these birds is remarkable. The Sorus is not known to be in Virginia, except for about six weeks from the latter end of September: at that time they are found in the marshes in prodigious numbers, feeding upon the wild oats. At first they are exceedingly lean, but in a short time grow so fat, as to be unable to fly: in this state they lie upon the reeds, and the Indians go out in canoes and knock them on the head with their paddles. They are rather bigger than a lark, and are delicious eating. During the time of their continuing in season, you meet with them at the tables of most of the planters, breakfast, dinner, and supper*.

Oct. 2. We went to another plantation about twenty-four miles distant, belonging to a private gentleman†, upon Mattapony river. We staid there all that and the next day on account of rain.

Oct. 4. We travelled twenty-five miles to another gentleman's‡ house; and from thence, the day following, about twenty-five miles farther, to a town called Fredericksburg.

Fredericksburg is situated about a mile below the Falls of Rappahannoc: it is regularly laid out, as most of the towns in Virginia are, in parallel streets. Part of it is built upon an eminence, and commands a delightful prospect; the rest upon the edge of the water for the convenience of warehouses. The town was begun about thirty-two years ago, for the sake of carrying on a trade with the back-settlers; and is at present by far the most flourishing one in these parts.

We left Fredericksburg the 6th instant, and went to see the Falls. At this place is a small mercantile town called Falmouth, whose inhabitants are endeavouring to rival the Fredericksburghers in their trade. It is built upon the north side of the river, and consists of eighteen or twenty houses.

The Falls of Rappahannoc are similar to those of James river, except that they are not upon so large a scale. The whole range scarcely exceeds half a mile, and the breadth not a hundred yards. At the time of our going to see them, there was a fresh in the river, which added very much to their beauty. The centre of view was an island of about an hundred acres covered with trees; this divided the river into two branches, in each of which, at regular distances of fifteen or twenty yards, was a chain of six or seven falls, one above another, the least of them a foot perpendicular. The margin was beautifully variegated with rocks and trees, and the whole formed a pleasing romantic scene.

* In several parts of Virginia the antient custom of eating meat at breakfast still continues. At the top of the table, where the lady of the house presides, there is constantly tea and coffee; but the rest of the table is garnished with roasted fowls, ham, venison, game, and other dainties. Even at Williamsburg, it is the custom to have a plate of cold ham upon the table; and there is scarcely a Virginian lady who breakfasts without it.

† Major Henry Gaines.

‡ Col. Bailors.

At this place we met with a person who informed us of his having been a few days before, a spectator of that extraordinary phenomenon in nature, the fascinating power of the rattle snake. He observed one lying coiled near a tree, looking directly at a bird which had settled there. The bird was under great agitation, uttered the most doleful cries, hopped from spray to spray, and at length flew directly down to the snake, which opened its mouth and swallowed it.

From hence we ascended up the river, about fifteen miles, to Spotswood's iron-mines; and in our way had a fine view of the Apalachian mountains, or Blue Ridge, at the distance of seventy miles. At this place I was much affected by the following incident:—A gentleman in our company, which was now increased, had a small negro boy with him, about fourteen years of age, that had lived with him in a remote part of the country some time as a servant; an old woman who was working in the mines, and who proved to be the boy's grandmother, accidentally cast her eyes on him; she viewed him with great attention for some time; then screamed out, saying that it was her child, and flung herself down upon the ground. She lay there some seconds; rose up, looked on him again in an extasy of joy, and fell upon his neck and kissed him. After this, she retired a few paces, examined him afresh with fixed attention, and immediately seemed to lose herself in thoughtful and profound melancholy. The boy all this while stood silent and motionless; reclining his head on one side, pale and affected beyond description: it would not have been in the power of painting to exhibit a finer picture of distress.

We returned from this place the next day to Fredericksburg; and ferrying over the Rappahannoc into the Northern Neck, travelled about seventeen miles to a gentleman's house in Stafford county: in the morning we proceeded through Dumfries, and over Occoquan river to Colchester, about twenty-one miles.

These are two small towns lately built for the sake of the back trade; the former* on the Quantico, the other upon Occoquan river, both of which fall into the Potomac. About two miles above Colchester there is an iron furnace, a forge, two saw-mills, and a bolting-mill: at our return we had an opportunity of visiting them: they have every convenience of wood and water, that can be wished for. The ore wrought here is brought from Maryland; not that there is any doubt of there being plenty enough in the adjacent hills; but the inhabitants are discouraged from trying for it by the proprietor's (viz. Lord Fairfax) having reserved to himself a third of all ore that may be discovered in the Northern Neck†.

From

* In the preceding editions of this book, Dumfries is mentioned as situated upon Acquia Creek; but this is certainly erroneous, for all the maps describe it as situated upon the Quantico. The error probably arose from the author's having passed the Acquia, the Quantico and the Occoquan, rivers in the same day; and his want of perfect and correct recollection, when he wrote his journal in the evening.

† An occurrence happened to me in the course of this day's travelling, which, though it made a considerable impression upon me at the time, I should not have thought of sufficient moment to be recorded, had not the intellectual powers of the African Negroes been frequently, of late, made the subject of conversation, both by the friends and the opposers of the emancipation of that unhappy race. In passing either Acquia, Quantico, or Occoquan rivers, I do not recollect which, I was rowed by an old grey-headed Negro; who seemed quite exhausted and worn down by age and infirmity. I inquired into his situation, and received for answer, that he had been a slave from his youth, and had continued to work for his master till age had rendered him unfit for service; that his master had then kindly given him a small piece of ground, and the profits of the ferry, which were indeed very inconsiderable, for his maintenance: and that with these means of subsistence he awaited the hour when it might please God to call him to another life.

I observed

From Colchester we went about twelve miles farther to Mount Vernon. This place is the property of Colonel Washington, and truly deserving of its owner*. The house is most beautifully situated upon a high hill on the banks of the Potowmac; and commands a noble prospect of water, of cliffs, of woods, and plantations. The river is nearly two miles broad, though two hundred from the mouth; and divides the dominions of Virginia from Maryland†. We rested here one day, and proceeded up the river about twenty-six miles, to take a view of the great falls. These are formed in some respect like those of the Rappahannoc; but are infinitely more noble. The channel of the river is contracted by hills; and is as narrow, I was told, as at Fort Cumberland, which is an hundred and fifty miles higher up. It is clogged moreover with innumerable rocks; so that the water for a mile or two flows with accelerated velocity. At length coming to a ledge of rocks, which runs diametrically across the river, it divides into two spouts, each about eight yards wide, and rushes down a precipice with incredible rapidity. The spout on the Virginian side makes three falls, one above another; the first about ten feet, the next fifteen, and the last twenty-four or twenty-five feet perpendicular: the water is of a vast bulk, and almost intire. The spout on the Maryland side is nearly equal in height and quantity, but a great deal more broken. These two spouts, after running in separate channels for a short space, at length unite in one about thirty yards wide; and as we judged from the smoothness of the surface and our unsuccessful endeavours to fathom it, of prodigious depth. The rocks on each side are at least ninety or a hundred feet high; and yet, in great freshes, the water overflows the tops of them, as appeared by several large and intire trees, which had lodged there.

In the evening we returned down the river about sixteen miles to Alexandria, or Bel-haven, a small trading place in one of the finest situations imaginable. The Potow-

I observed, that he must naturally wish for that hour, as it would release him from his present sufferings. His answer was, no; for he was afraid to die. On my questioning him, why he was afraid to die: whether he had any thing upon his conscience that gave him uneasiness; or whether he had not been honest and faithful to his master? He answered, yes; I have always done my duty to the best of my power: but yet I am afraid to die: and was not our Saviour himself afraid to die? The answer was so unexpected, and so far beyond what I supposed to be the intellectual capacity of the poor Negro, that it sunk deep into my mind, and I was lost for a moment in silence.

* I cannot omit this opportunity of bearing testimony to the gallant and public spirit of this gentleman. Nov. 1, 1753, Lieutenant Governor Dinwiddie having informed the assembly of Virginia, that the French had erected a fort upon the Ohio, it was resolved to send somebody to M. St. Pierre, the commander, to claim that country as belonging to His Britannic Majesty, and to order him to withdraw. Mr. Washington, a young gentleman of fortune just arrived at age, offered his service on this important occasion. The distance was more than 400 miles, 200 of which lay through a trackless desert, inhabited by cruel and merciless savages, and the season was uncommonly severe. Notwithstanding these discouraging circumstances, Mr. Washington, attended by one companion only, set out upon this dangerous enterprize; travelled from Winchester on foot, carrying his provisions on his back, executed his commission, and after incredible hardships, and many providential escapes, returned safe to Williamsburg, and gave an account of his negotiation to the assembly, the 14th day of February following.

† A very curious sight is frequently exhibited upon this and the other great rivers in Virginia, which for its novelty is exceedingly diverting to strangers. During the spring and summer months the fishing hawk is often seen hovering over the rivers, or resting on the wing without the least visible change of place for some minutes, then suddenly darting down and plunging into the water, from whence it seldom rises again without a rock-fish, or some other considerable fish in its talons. It immediately shakes off the water like a mist, and makes the best of its way towards the woods. The bald-eagle, which is generally upon the watch, instantly pursues, and if it can overtake, endeavours to soar above it. The hawk growing solicitous for its own safety drops the fish, and the bald-eagle immediately stoops, and seldom fails to catch it in its pounces before it reaches the water.



Engraved from a Large Print, by Permission of M^r Nightingale.

Great Falls of the Potomac.

London, Published by Longman, Hurst, Rees, Orme & Brown, Paternoster Row May 1822.

mac above and below the town, is not more than a mile broad, but it here opens into a large circular bay, of at least twice that diameter.

The town is built upon an arc of this bay; at one extremity of which is a wharf, at the other a dock for building ships; with water sufficiently deep to launch a vessel of any rate or magnitude.

The next day we returned to Colonel Washington's, and in a few days afterward to Williamsburg.

The time of my residence in this colony was ten months, and I received so many instances of friendship and good-nature, that not to acknowledge them would be an act of ingratitude. It would not be easy to mention particular instances, without being guilty of injustice by omitting others: but, in general, I can truly affirm, that I took leave of this hospitable people with regret, and shall ever remember them with gratitude and affection.

May 26, 1760. Having procured three horses, for myself, servant, and baggage, I departed from Williamsburg, and travelled that night to Eltham*; twenty-five miles.

May 27. I ferried over Pamunky river at Dansies, and went to Todds ordinary upon Mattopony, or the northern branch of York river; thirty-two miles.

May 28. I went to a plantation in Caroline county†; twenty-seven miles.

May 29. To Fredericksburg; twenty-five miles.

As I was travelling this day, I observed a large black snake, about six feet long, lying cross the stump of a tree by the road side. I touched it with my switch several times before it stirred; at last it darted with incredible swiftness into the woods. On looking into the hole where it had fixed its head, I observed a small bead-snake about two feet long; beautifully variegated with red, black, and orange colour, which the black snake was watching to prey upon. I took and laid it, half stupified, in the sun to revive. After I had proceeded about a quarter of a mile, it occurred to me that it would be a great curiosity if I could carry it to England, I therefore sent my servant back with orders to fetch it; but, at his return, he acquainted me that it was not to be found, and that the black snake was in the same position wherein I had first discovered it. I mention this as an instance of the intrepid nature of the black snake, which though not venomous, will attack and devour the rattlesnake; and, in some cases, it is asserted, even dare to assault a man.

May 30. I left Fredericksburg, and having ferried over the Rappahannoc at the Falls, travelled that night to Neville's ordinary, about thirty-four miles.

May 31. I passed over the Pignut and Blue Ridges; and, crossing the Shenando, arrived, after a long day's journey of about fifty miles, at Winchester‡.

The Pignut Ridge is a continuation of the south-west mountains. It is now here very high; and at the gap where I passed, the ascent is so extremely easy, owing to the winding of the road between the mountains, that I was scarcely sensible of it.

The tract of country lying between this ridge and the coast, is supposed, and with some appearance of probability, to have been gained from the ocean. The situation is extremely low, and the ground every where broken into small hills, nearly of the same elevation, with deep intermediate gullies, as if it were the effect of some sudden

* The plantation of Colonel Bassett.

† Belonging to Colonel Bailor, mentioned above.

‡ Greenway Court, the seat of the venerable Lord Fairfax, is situated a few miles on the left of the road, about half way between the Apalachian mountains and Winchester. His Lordship being absent, I was prevented from paying my respects to him.

retiring of the waters. The soil is principally of sand, and there are few if any pebbles, within a hundred miles of the shore; for which reason the Virginians in these parts never shoe their horses. Incredible quantities of what are called scallop-shells, are found also near the surface of the ground; and many of the hills are entirely formed of them. These phenomena, with others less obvious to common observation, seem to indicate, that the Atlantic, either gradually or by some sudden revolution in nature, has retired and lost a considerable part of that dominion which formerly belonged to it.

The Blue Ridge is much higher than the Pignut: though even these mountains are not to be compared with the Alleghenny. To the southward, I was told, they are more lofty; and but little, if at all, inferior to them. The Pass, at Ashby's Gap, from the foot of the mountain on the eastern side to the Shenando, which runs at the foot on the western, is about four miles. The ascent is no where very steep; though the mountains are, upon the whole, I think, higher than any I have ever seen in England. When I got to the top, I was inexpressibly delighted with the scene which opened before me. Immediately under the mountain, which was covered with chamædaphnes in full bloom, was a most beautiful river: beyond this an extensive plain, diversified with every pleasing object that nature can exhibit; and, at the distance of fifty miles, another ridge of still more lofty mountains, called the Great, or North Ridge*, which inclosed and terminated the whole.

The river Shenando rises a great way to the southward from under this Great North Ridge. It runs through Augusta county, and falls into the Potowmac somewhere in Frederic. At the place where I ferried over, it is only about a hundred yards wide; and indeed it is no where, I believe, very broad. It is exceedingly romantic and beautiful, forming great variety of falls, and is so transparent, that you may see the smallest pebble at the depth of eight or ten feet. There is plenty of trout and other fish in it; but it is not navigable, except for rafts. In sudden freshes it rises above forty or fifty feet. The low grounds upon the banks of this river are very rich and fertile; they are chiefly settled by Germans, who gain a comfortable livelihood by raising stock for the troops, and sending butter down into the lower parts of the country. I could not but reflect with pleasure on the situation of these people; and think if there is such a thing as happiness in this life, that they enjoy it. Far from the bustle of the world, they live in the most delightful climate, and richest soil imaginable; they are every where surrounded with beautiful prospects and sylvan scenes; lofty mountains, transparent streams, falls of water, rich vallies, and majestic woods; the whole interspersed with an infinite variety of flowering shrubs, constitute the landscape surrounding them: they are subject to few diseases; are generally robust; and live in perfect liberty: they are ignorant of want, and acquainted with but few vices. Their inexperience of the elegancies of life precludes any regret that they possess not the means of enjoying them: but they possess what many princes would give half their dominions for, health, content, and tranquillity of mind.

Winchester is a small town of about two hundred houses. It is the place of general rendezvous of the Virginian troops, which is the reason of its late rapid increase, and present flourishing condition. The country about it, before the reduction of Fort du Quesne, was greatly exposed to the ravages of the Indians, who daily committed most horrid cruelties: even the town would have been in danger, had not Colonel Washington, in order to cover and protect it, erected a fort upon an eminence at one end of it, which

* All these ridges consist of single mountains joined together, and run parallel to each other.

proved of the utmost utility; for although the Indians were frequently in fight of the town, they never dared to approach within reach of the fort. It is a regular square fortification, with four bastions, mounting twenty-four cannon; the length of each curtain, if I am not mistaken, is about eighty yards. Within, there are barracks for 450 men. The materials of which it is constructed, are logs filled up with earth: the soldiers attempted to surround it with a dry ditch; but the rock was so extremely hard and impenetrable that they were obliged to desist. It is still unfinished; and, I fear, going to ruin; for the assembly, who seldom look a great way before them, after having spent about 9000*l.* currency upon it, cannot be prevailed upon to give another thousand towards finishing it, because we are in possession of Pittsburg; and, as they suppose, quite secure on this account; yet it is certain, that, in case of another Indian war on this side, which is by no means improbable, considering our general treatment of that people, it would be of the utmost advantage and security.

There is a peculiarity in the water at Winchester, owing, I was told, to the soil's being of a limy quality, which is frequently productive of severe gripings, especially in strangers; but it is generally supposed, on the other hand, to be specific against some other diseases*.

During my stay at this place, I was almost induced to make a tour for a fortnight to the southward, in Augusta county, for the sake of seeing some natural curiosities; which, the officers assured me, were extremely well worth visiting: but as the Cherokees had been scalping in those parts only a few days before; and as I feared, at the same time, that it would detain me too long, and that I should lose my passage to England, I judged it prudent to decline it.

The curiosities they mentioned to me were chiefly these:

1. About forty miles westward of Augusta court-house, a beautiful cascade, bursting out of the side of a rock, and, after running some distance through a meadow, rushing down a precipice 150 feet perpendicular.

2. To the southward of this about twenty miles, two curious hot springs, one tasting like alum, the other like the washings of a gun.

3. A most extraordinary cave.

4. A medicinal spring, specific in venereal cases. A soldier in the Virginian regiment, whose case was thought desperate, by drinking and bathing in these waters, was, after a few days, entirely cured. This fact was asserted very strongly by some officers, who had been posted there: but Colonel Washington, of whom I inquired more particularly concerning it, informed me that he had never heard of it; that he was not indeed at the place where it is said to have happened, but that having had the command of the regiment at that time, he should probably have been informed of it. What credit therefore is to be given to it the reader must judge for himself.

5. Sixty miles southward of Augusta court-house, a natural arch, or bridge, joining two high mountains, with a considerable river running underneath.

6. A river called Lost river, from its sinking under a mountain, and never appearing again.

7. A spring of a sulphureous nature, an infallible cure for particular cutaneous disorders.

8. Sixteen miles north-east of Winchester, a natural cave or well, into which, at times, a person may go down to the depth of 100 or 150 yards; and at other times,

* Professor Haller, in his notes to the German translation of this book, supposes that the water at Winchester may be impregnated with vitriolic magnesia, *sal amarum*.

the water rises up to the top, and overflows plentifully. This is called the ebbing and flowing well, and is situated in a plain flat country, not contiguous to any mountain or running water.

9. A few miles from hence, six or seven curious caves communicating with each other.

A day or two before I left Winchester, I discovered that I had been robbed by my servant: he confessed the fact, and pleaded so little in justification of himself, that I was obliged to dismiss him. This distressed me very much, for it was impossible to hire a servant in these parts, or even any one to go over the mountains with me into the lower settlements. However, by the politeness of the commander of the place, the honourable Colonel Byard, and of another gentleman* of my acquaintance, I got over these difficulties; for the former, while I continued at Winchester, accommodated me with his own apartments in the fort, ordering his servants to attend and wait upon me; and the latter sent a negro boy with me as far as Colonel Washington's, eighty miles distant from this place. On the 4th of June, therefore, I was enabled to leave Winchester, and I travelled that night about eighteen miles, to Sniker's† ferry upon the Shenando.

The next morning I repassed the Blue Ridge at Williams's Gap, and proceeded on my journey about forty miles. I this day fell into conversation with a planter, who overtook me on the road, concerning the rattlesnake, of which there are infinite numbers in these parts; and he told me, that one day going to a mill at some distance, he provoked one to such a degree as to make it strike a small vine which grew close by, and that the vine presently drooped and died ‡.

My accommodations this evening were extremely bad; I had been wet to the skin in the afternoon; and at the miserable plantation in which I had taken shelter I could get no fire; nothing to eat or drink but pure water; and not even a blanket to cover me. I threw myself down upon my mattresses, but suffered so much from cold, and was so infested with insects and vermin, that I could not close my eyes. I rose early in the morning, therefore, and proceeded upon my journey, being distant from Colonel Washington's not more than thirty miles. It was late, however, before I arrived there, for it rained extremely hard, and a man who undertook to shew me the nearest way, led me among precipices and rocks, and we were lost for above two hours. It was not indeed, without some compensation; for he brought me through as beautiful and picturesque a scene as eye ever beheld. It was a delightful valley, about two miles in length, and a quarter of one in breadth, between high and craggy mountains, covered with chamædaphnes § or wild ivy, in full flower. Through the middle of the valley

* Colonel Churchhill.

† Called in Fry and Jefferson's map, Williams's Ferry.

‡ Several persons to whom I have mentioned this fact have seemed to doubt of the probability of it. But were it not true, a question will naturally arise, how an idea of that nature should occur to an ignorant planter, living remote from all cultivated society; and, more particularly, how he should happen to fix upon that tree; which, supposing the thing possible, is the most likely to have been affected in the manner described.

§ The chamædaphne is the most beautiful of all flowering shrubs: Catesby in his Natural History of Carolina speaks of it in the following manner: "The flowers grow in bunches on the tops of the branches, to footstalks of three inches long; they are white, stained with purplish red; consisting of one leaf in form of a cup, divided at the verge into five sections. In the middle is a stilius, and ten stamina, which, when the flower first opens, appear lying close to the sides of the cup, at equal distances; their apices being lodged in ten little hollow cells, which being prominent on the outside, appear as so many little tubercles.—As all plants have their peculiar beauties, it is difficult to assign to any one an elegance excelling all others; yet considering the curious structure of the flower, and beautiful appearance of this whole plant, I know of no shrub that has a better claim to it." Catesby, Vol. II. p. 98.

glided a rivulet about eight yards wide, extremely lucid, and breaking into innumerable cascades; and in different parts of it stood small clumps of evergreens; such as myrtles, cedars, pines, and various other sorts. Upon the whole, not Tempe itself could have displayed greater beauty or a more delightful scene.

At Colonel Washington's I disposed of my horses, and, having borrowed his curricule and servant, I took leave of Mount Vernon the 11th of June.

I crossed over the Potowmac into Maryland at Clifton's Ferry, where the river is something more than a mile broad; and proceeded on my journey to Marlborough, eighteen miles. I here met with a strolling company of players, under the direction of one Douglas. I went to see their theatre, which was a neat convenient tobacco-house, well fitted up for the purpose. From hence in the afternoon I proceeded to Queen Ann, nine miles; and in the evening nine miles farther, over the Patuxen to Londontown Ferry; I staid here all night, and early in the morning ferrying over South River, three quarters of a mile in breadth, I arrived at Annapolis, four miles distant, about nine in the morning.

Annapolis is the capital of Maryland; it is a small neat town, consisting of about a hundred and fifty houses, situated on a peninsula upon Severn river. The peninsula is formed by the river, and two small creeks; and although the river is not above a mile broad; yet as it falls into Chesapeak bay a little below, there is from this town the finest water-prospect imaginable. The bay is twelve miles over, and beyond it you may discern the eastern shore; so that the scene is diversified with fields, woods, and water. The tide rises here about two feet, and the water is salt, though the distance of the capes is more than 200 miles. The town is not laid out regularly, but is tolerably well built, and has several good brick houses. None of the streets are paved, and the few public buildings here are not worth mentioning. The church is a very poor one, the stadt-house but indifferent, and the governor's palace is not finished. This last mentioned building was begun a few years ago; it is situated very finely upon an eminence, and commands a beautiful view of the town and environs. It has four large rooms on the lower floor, besides a magnificent saloon, a stair-case, and a vestibule. On each side of the entrance are four windows, and nine upon the first story; the offices are underground. It was to have had a fine portico the whole range of the building; but unluckily the governor and assembly disagreeing about ways and means, the execution of the design was suspended; and only the shell of the house has been finished, which is now going to ruin. The house which the present governor inhabits, is hired by the province at 80*l.* currency per annum.

There is very little trade carried on from this place, and the chief of the inhabitants are storekeepers or public officers. They build two or three ships annually, but seldom more. There are no fortifications, except a miserable battery of fifteen six-pounders.

Maryland is situated between the 38th and 40th degree of north latitude, and the 75th and 80th of west longitude from London. It is bounded on the east by the Atlantic ocean, and the three lower counties of Delaware; on the south and west by Virginia; and by Pennsylvania on the north. The climate, soil, and natural productions of it are nearly the same as those of Virginia. It is watered by many fine rivers, and almost innumerable creeks; but it is far from being well cultivated, and is capable of much improvement. It is divided into fourteen counties, and between forty and fifty parishes; and there are several little towns in it which are neatly built.—The inhabitants, exclusive of slaves, are supposed to be about ninety thousand: of which the militia, including all white males between sixteen and sixty, amounts to eighteen. The slaves are about thirty-two thousand.—The staple of the country is tobacco; and, communibus

munibus annis they export near 30,000 hogheads: last year their exports amounted to 50,000.—Their manufactures are very trifling.—The government is a proprietary one; and consists of the proprietor (viz. lord Baltimore); his governor; the council, composed of twelve persons nominated by himself; and a house of representatives, elected by the people; four for each county, and two for Annapolis. The power of the proprietor is next to regal; of the other parts of the legislature, much the same as in Virginia. The lower house has been at variance some years with the council and governor, concerning ways and means; chiefly in regard to taxing the merchants book-debts: which has been the reason of their having done nothing for the defence of the colonies during the war. The house has constantly voted troops, but as constantly laid the same tax for the maintenance of them: the council therefore has always rejected the bill; alledging the inconvenience of such a tax, as it would necessarily be a restraint upon trade; and ruin many of the merchants credit.—The proprietor has a negative* upon every bill, exclusive of his governor.

There are several courts of judicature in this province; but the principal are either those which are held quarterly in each county by the justices thereof, like those in Virginia; or the provincial ones, which are held twice annually at Annapolis by judges appointed for that purpose†. The court of chancery consists of the governor and council; and the dernier resort is to His Majesty in council at home.

The established religion is that of the church of England: but there are as many Roman Catholics as Protestants. The clergy are liberally provided for; they have not, as in Virginia, a fixed quantity of tobacco; but so much per head, viz. 30 lb. weight for every tytheable in their respective parishes: and some of them make more than 300l. sterling per annum. They are presented to their livings by the governor; and are under the jurisdiction of the Bishop of London; but being at a great distance from England, and having no commissary to superintend their affairs, they lie under many disadvantages. Assessments are made, I was told, by the county-courts; the vestry, which consists of twelve members distinct from the churchwardens, have little or no authority‡.

In each county throughout this province, there is a public free-school, for reading, writing, and accounts; but no college or academy; and the education of youth is but little attended to.

The character of the inhabitants is much the same as that of the Virginians; and the state of the two colonies nearly alike. Tobacco, to speak in general, is the chief thing attended to in both. There have been some attempts to make wine; and it is certain, that the country is capable of producing almost any sort of grapes. Colonel Tasco, a gentleman of distinction in these parts, attempted to make Burgundy, and succeeded tolerably well for the first trial. I drank some of the wine at the table of Mr. Hamilton, the governor of Pennsylvania, and thought it not bad. But whether, as this gentleman is now deceased, any other person will have spirit to prosecute his plan, I much doubt. The currency here is paper-money, and the difference of exchange about fifty per cent. The duty upon negroes is only forty shillings currency per head at their importation; whereas in Virginia it is ten pounds.

* This power is doubted, though it has never yet been contested.

† Besides these courts, there was formerly a general court of assize held throughout the province, either once or twice a year, but this has been laid aside.

‡ The whole vestry, as in Virginia, consists of twelve members; but they go off by rotation two every year; and there is annually a fresh election. They have the power of appointing inspectors, &c.

June 13. I hired a schooner of about ten ton, and embarked for the head of the bay, distant twenty-three leagues; we made sail with a fresh breeze, and after a pleasant passage of sixteen hours, in one of the most delightful days imaginable, arrived at Frederick Town upon Sassafras river, about twelve in the evening. I never in my life spent a day more agreeably, or with higher entertainment. The shores on each side of the bay, and the many little islands interspersed in it, afford very beautiful prospects; we were entertained at the same time by innumerable porpoises playing about the bow of the ship; and naturally fell into a train of the most pleasing reflections, on observing the mouths of the many noble rivers as we passed along. On the western shore, besides those great rivers of Virginia, which I have already described, there are ten or eleven others, large and capacious, some of them navigable a considerable way up into the country*. "The Patuxen, which we have left behind us, said the master of the schooner, as we were sailing over this beautiful bay, is navigable near fifty miles for vessels of three hundred ton burthen. Yonder, he added, are South, Severn, and Magotty rivers, navigable about ten miles. A little farther is the Patapisco, a large and noble river; where I have gone up fifteen miles. Back, Middle, Gunpowder, and Bush rivers admit only sloops and schooners, and these only for six or seven miles. The Susquehannah, though so majestic, and superior in appearance, has only a short, and that a bad navigation; but it rises an immense way off in unknown and inhospitable regions, is exceedingly large and beautiful, and affords great variety of fish. The next, or North river, is navigable about ten miles. On the eastern shore, he concluded, are Elk, Bahama, Sassafras, Chester, Wye, Miles, Great Choptank, Little Choptank, Nanticote, Manokin, and Pocomoke rivers, all of them navigable, more or less, for several miles†."—Such was our conversation and entertainment during this delightful voyage.

Frederic Town is a small village on the western side of Sassafras river, built for the accommodation of strangers and travellers; on the eastern side, exactly opposite to it, is another small village (George Town), erected for the same purpose.—Having hired an Italian chaise, with a servant and horse to attend me as far as Philadelphia, I left Frederic Town the next day, and went to Newcastle, thirty two miles.

Newcastle is situated upon Delaware river, about forty miles above the Bay, and a hundred from the Capes. It is the capital of the three lower counties, but a place of very little consideration; there are scarcely more than a hundred houses in it, and no public buildings that deserve to be taken notice of. The church, presbyterian and quakers meeting-houses, court-house, and market-house, are almost equally bad, and undeserving of attention.

The province, of which this is the capital, and which is distinguished by the name of the Three Lower Counties of Newcastle, Suffex, and Kent, belonged formerly to the Dutch; but was ratified to the crown of England by the treaty of Breda; it was afterwards sold by the Duke of York to the proprietor of Pennsylvania, and has continued a separate government, though nearly under the same regulations with that province, ever since. The same governor presides over both; but the assembly, and courts of judicature are different: different as to their constituent members, for in form they are nearly alike. The assembly consists of eighteen persons, elected annually by the

* By some error or oversight the names of several rivers here mentioned, though particularly specified in the original manuscript, were omitted in the first and second editions of this work. They are now inserted, and the account is correct.

† He said from eighteen to fifty miles.

people; fix for each county: this, with the governor, forms the legislature of the province. There is a militia, in which all persons, from eighteen to fifty, are obliged to be enrolled; and the county of Newcastle alone furnishes more than seven hundred.

The next day I set out for Philadelphia, distant about thirty-six miles, and arrived there in the evening. The country all the way bore a different aspect from any thing I had hitherto seen in America. It was much better cultivated, and beautifully laid out into fields of clover, grain, and flax. I passed by a very pretty village called Wilmington, and rode through two others, viz. Chester and Derby. The Delaware river is in sight great part of the way, and is three miles broad; upon the whole nothing could be more pleasing than the ride which I had this day. I ferried over the Schuikill, about three miles below Philadelphia; from whence to the city the whole country is covered with villas, gardens, and luxuriant orchards.

Philadelphia, if we consider that not eighty years ago the place where it now stands was a wild and uncultivated desert, inhabited by nothing but ravenous beasts, and a savage people, must certainly be the object of every one's wonder and admiration. It is situated upon a tongue of land, a few miles above the confluence of the Delaware Schuikill; and contains about 3000 houses, and 18 or 20,000 inhabitants. It is built north and south upon the banks of the Delaware; and is nearly two miles in length, and three quarters of one in breadth. The streets are laid out with great regularity in parallel lines, intersected by others at right angles, and are handsomely built: on each side there is a pavement of broad stones for foot passengers; and in most of them a causeway in the middle for carriages. Upon dark nights it is well lighted, and watched by a patrol: there are many fair houses, and public edifices in it. The stadthouse is a large, handsome, though heavy building; in this are held the councils, the assemblies, and supreme courts; there are apartments in it also for the accommodation of Indian chiefs or sachems; likewise two libraries; one belonging to the province, the other to a society, which was incorporated about ten years ago, and consists of sixty members. Each member upon admission, subscribed forty shillings; and afterward annually ten. They can alienate their shares, by will or deed, to any person approved by the society. They have a small collection of medals and medallions, and a few other curiosities, such as the skin of a rattlesnake killed at Surinam, twelve feet long; and several northern Indian habits made of furs and skins. At a small distance from the stadthouse, there is another fine library, consisting of a very valuable and chosen collection of books left by a Mr. Logan; they are chiefly in the learned languages. Near this there is also a noble hospital for lunatics and other sick persons. Besides these buildings, there are spacious barracks for 17 or 1800 men; a good assembly-room belonging to the society of freemasons; and eight or ten places of religious worship; viz. two churches, three quakers meeting-houses, two presbyterian ditto, one Lutheran church, one Dutch Calvinist ditto, one Swedish ditto, one Romish chapel, one Anabaptist meeting-house, one Moravian ditto: there is also an academy or college, originally built for a tabernacle for Mr. Whitefield. At the south end of the town, upon the river, there is a battery mounting thirty guns, but it is in a state of decay. It was designed to be a check upon privateers. These, with a few alms-houses, and a school-house belonging to the quakers, are the chief public buildings in Philadelphia. The city is in a very flourishing state, and inhabited by merchants, artists, tradesmen, and persons of all occupations. There is a public market held twice a week, upon Wednesday and Saturday, almost equal to that of Leadenhall, and a tolerable one every day besides.

The streets are crowded with people, and the river with vessels. Houses are so dear, that they will let for 100*l.* currency per annum; and lots, not above thirty feet in breadth, and a hundred in length, in advantageous situations, will sell for 1000*l.* sterling. There are several docks upon the river, and about twenty-five vessels are built there annually. I counted upon the stocks at one time no less than seventeen, many of them three-masted vessels.

Can the mind have a greater pleasure than in contemplating the rise and progress of cities and kingdoms? Than in perceiving a rich and opulent state arising out of a small settlement or colony? This pleasure every one must feel who considers Pennsylvania.— This wonderful province is situated between the 40th and 43d degree of north latitude, and about 76 degrees west longitude from London, in a healthy and delightful climate, amidst all the advantages that nature can bestow. The soil is extremely strong and fertile, and produces spontaneously an infinite variety of trees, flowers, fruits, and plants of different sorts. The mountains are enriched with ore, and the rivers with fish: some of these are so stately as not to be beheld without admiration: the Delaware is navigable for large vessels as far as the falls, 180 miles distant from the sea, and 120 from the bay. At the mouth it is more than three miles broad, and above one at Philadelphia. The navigation is obstructed in the winter, for about six weeks, by the severity of the frost; but, at other times, it is bold and open. The Schuylkill, though not navigable for any great space, is exceedingly romantic, and affords the most delightful retirements.

Cultivation (comparatively speaking) is carried to a high degree of perfection; and Pennsylvania produces not only great plenty, but also great variety of grain; it yields likewise flax-seed, hemp, cattle of different kinds, and various other articles*.

It is divided into eight counties, and contains many large and populous towns: Carlisle, Lancaster, and German-town, consist each of near five hundred houses; there are several others which have from one to two hundred.

The number of inhabitants is supposed to be between four and five hundred thousand†, a fifth of which are Quakers: there are very few negroes or slaves.

The trade of Pennsylvania is surprisingly extensive, carried on to Great Britain, the West Indies, every part of North America, the Madeiras, Lisbon, Cadiz, Holland, Africa, the Spanish main, and several other places; exclusive of what is illicitly carried on to Cape François, and Monte Christo. Their exports are provisions of all kinds, lumber, hemp, flax, flax-seed, iron, furs, and deer-skins. Their imports, English manufactures, with the superfluities and luxuries of life. By their flag-of-truce trade, they also get sugar, which they refine and send to Europe.

Their manufactures are very considerable. The German-town thread stockings are in high estimation; and the year before last, I have been credibly informed, there

* In the southern colonies cultivation is in a very low state. The common process of it is, first to cut off the trees two or three feet above ground, in order to let in the sun and air, leaving the stumps to decay and rot, which they do in a few years. After this they dig and plant, and continue to work the same field, year after year, without ever manuring it, till it is quite spent. They then enter upon a fresh piece of ground, allowing this a respite of about twenty years to recover itself; during which time it becomes beautifully covered with Virginian pines: the seeds of that tree, which are exceedingly small, and, when the cones open, are wafted through the air in great abundance, sowing themselves in every vacant spot of neglected ground.

† Doubts have since arisen, whether the number, at the time here mentioned, amounted to more than 350,000.—See Morse's American geography.

were manufactured in that town alone above 60,000 dozen pair. Their common retail price is a dollar per pair.

The Irish settlers make very good linens: some woollens have also been fabricated, but not, I believe, to any amount. There are several other manufactures, viz. of beaver hats, which are superior in goodness to any in Europe, of cordage, linseed-oil, starch, myrtle-wax and spermaceti candles, soap, earthen ware, and other commodities.

The government of this province is a proprietary one. The legislature is lodged in the hands of a governor appointed (with the King's approbation) by the proprietor; and a house of representatives, elected by the people, consisting of thirty-seven members. These are of various religious persuasions, for by the charter of privileges, which Mr. Penn granted to the settlers in Pennsylvania, no person who believed in God could be molested in his calling or profession; and any one who believed in Jesus Christ might enjoy the first post under the government. The crown has reserved to itself a power of repealing any law which may interfere with the prerogative, or be contrary to the laws of Great Britain.

The judicature consists of different courts. The justices of the peace, who, together with the other judges, are of the governor's appointment, hold quarterly sessions conformable to the laws of England; and, when these are finished, continue to sit in quality of judges of common pleas, by a special commission. The supreme court consists of a chief justice, and two assistant judges: they have the united authority of the King's Bench, Common Pleas, and Court of Exchequer. They not only receive appeals, but all causes once commenced in the inferior courts, after the first writ, may be moved thither by a habeas corpus, certiorari, writ of error, &c. The judges of the supreme court have also a standing and distinct commission to hold, as shall seem needful, courts of oyer and terminer, and general gaol-deliveries throughout the province; but this power they seldom, I believe, exercise. The supreme courts are held twice a year at Philadelphia. There is no Court of Chancery; but the want of it is supplied, in some measure, by the other courts. There is a particular officer called the register-general, appointed by the governor, whose authority extends over the whole province, where he has several deputies. He grants letters of administration, and probates of wills. In cases of dispute, or caveat entered, he may call in, as assistants, two justices of the peace. The governor can pardon in all cases, except of treason or murder, and then can reprieve till he knows the King's pleasure.

There is here, as in most of the other colonies, a Court of Vice Admiralty, held by commission from the Admiralty in England, for the trial of captures, and of piracies, and other misdemeanors committed upon the high seas, but there lies an appeal from it, I believe, to the Court of Delegates in England.

As to religion, there is none properly established; but Protestants of all denominations, Papists, Jews, and all other sects whatsoever, are universally tolerated. There are twelve clergymen of the church of England, who are sent by the Society for the Propagation of the Gospel, and are allowed annually 50*l.* each, besides what they get from subscriptions and surplice fees. Some few of these are itinerant missionaries, and have no fixed residence, but travel from place to place, as occasion requires, upon the frontiers. They are under the jurisdiction of the Bishop of London.

Arts and sciences are yet in their infancy. There are some few persons who have discovered a taste for music and painting *, and philosophy seems not only to have made

* Mr. Benjamin West, president of the Royal Academy, was, I believe, a native of Pennsylvania, if not of Philadelphia.

a considerable progress already, but to be daily gaining ground. The library society is an excellent institution for propagating a taste for literature; and the college well calculated to form and cultivate it. This last institution is erected upon an admirable plan, and is by far the best school for learning throughout America. It has been chiefly raised by contributions; and its present fund is about 10,000l. Penfylvanian money. An account of it may be seen in Dr. Smith's (the president's) Discourses. The Quakers also have an academy for instructing their youth in classical learning, and practical mathematics: there are three teachers, and about seventy boys in it. Besides these, there are several schools in the province for the Dutch and other foreign children; and a considerable one is going to be erected at German-town.

The Penfylvanians, as to character, are a frugal and industrious people; not remarkably courteous and hospitable to strangers, unless particularly recommended to them; but rather, like the denizens of most commercial cities, the reverse. They are great republicans, and have fallen into the same errors in their ideas of independency as most of the other colonies have. They are by far the most enterprising people upon the continent. As they consist of several nations, and talk several languages, they are aliens in some respect to Great Britain; nor can it be expected that they should have the same filial attachment to her which her own immediate offspring have. However, they are quiet, and concern themselves but little, except about getting money. The women are exceedingly handsome and polite: they are naturally sprightly and fond of pleasure; and, upon the whole, are much more agreeable and accomplished than the men. Since their intercourse with the English officers, they are greatly improved; and, without flattery, many of them would not make bad figures even in the first assemblies in Europe. Their amusements are chiefly dancing in the winter, and in the summer, forming parties of pleasure upon the Schuikill, and in the country. There is a society of sixteen ladies, and as many gentlemen, called the fishing company, who meet once a fortnight upon the Schuikill. They have a very pleasant room erected in a romantic situation upon the banks of that river, where they generally dine and drink tea. There are several pretty walks about it, and some wild and rugged rocks, which, together with the water and fine groves that adorn the banks, form a most beautiful and picturesque scene. There are boats and fishing tackle of all sorts, and the company divert themselves with walking, fishing, going up the water, dancing, singing, conversing, or just as they please. The ladies wear an uniform, and appear with great ease and advantage from the neatness and simplicity of it. The first and most distinguished people of the colony are of this society; and it is very advantageous to a stranger to be introduced to it, as he hereby gets acquainted with the best and most respectable company in Philadelphia. In the winter, when there is snow upon the ground, it is usual to make what they call sleighing parties, or to go upon it in sledges, but as this is a practice well known in Europe, it is needless to describe it.

The present state of Penfylvania is undoubtedly very flourishing. The country is well cultivated, and there are not less than 9000 waggons employed in it, in different services. Till this war they were exempt from taxes, and it was not without difficulty that the Quakers were prevailed upon to grant any supplies for the defence of the frontiers, though exposed to the most horrid cruelties: it was not from principle, say their enemies, that they refused it, but from interest; for as they were the first settlers, they chiefly occupy the interior and lower parts of the province, and are not exposed to incursions. At length, however, compelled by clamour and public discontent, they

were obliged to pass a supply bill for 100,000*l.* to raise five-and-twenty hundred men, and these they have kept up ever since : they afterward passed a militia bill, but it was such a one as answered no good purpose. The Quakers have much the greatest influence in the assembly, and are supported there by the Dutch and Germans, who are as adverse to taxes as themselves. Their power, however, at present seems rather on the decline, which is the reason, as the opposite party pretend, that they stir up on all occasions as much confusion as possible, from that trite maxim in politics, *divide et impera*. They have quarrelled with the proprietors upon several occasions, whether altogether justly or not, I will not pretend to say ; it is certain, however, that the determinations at home have been sometimes in their favour. The late subjects of their disputes have been chiefly these :

First, Whether the proprietary lands ought to be taxed ? This has been determined at home in the affirmative.

Secondly, Whether the proprietor ought to have any choice or approbation of the assessors ?

Thirdly, Whether he ought to give his governor instructions ? And,

Lastly, Whether the judges of his appointment ought to be during pleasure, or *quamdiu se bene gesserint* ? These three last are still undecided.

Upon the whole, though this province is exceedingly flourishing, yet there are certainly great abuses in it ; and such as, if not speedily rectified, will be productive of bad consequences.

The difference of exchange between bills and the currency of Pennsylvania is about 75 per cent.

An occurrence happened to me at Philadelphia, which, though in itself of a trifling nature, I cannot but take notice of, as a singular instance of the strong possession which an idea will sometimes take of the mind, so as totally to derange it. A lady from Rhode Island, who lodged in the same house with myself, had an unfortunate brother in the infirmary, a lunatic. He was supposed to be nearly well, and was permitted occasionally to see company. A few days before I was to leave Philadelphia, this lady invited me to accompany her in one of her visits to him ; adding, that on her inadvertently mentioning to him some circumstances relating to me, he had expressed a most earnest desire to see me. I strongly objected to the proposal, urging the impropriety of introducing a stranger, or, indeed, company of any sort, to a person in that unhappy situation, as it might possibly agitate his mind, and retard his recovery. I advised her therefore not to take any further notice of it ; hoping he might forget, or not mention it any more. The next day she renewed her application ; adding, that her brother was exceedingly disappointed ; and entreated me to attend her, in so pressing a manner, that I could not with civility refuse it. On entering the cell, a beam of satisfaction seemed to dart from his eye, not easy to be expressed or conceived. I took him by the hand ; and, seating myself opposite the bed to which he was chained, immediately took the lead in conversation, talking of indifferent matters, such as I thought could not possibly tend to interest or disturb his mind. I had not proceeded far when he suddenly interrupted me ; and proposed a question, which at once convinced me that he was in a very unfit state to see company. I immediately therefore rose up ; and making an excuse that my engagements that day would not admit of my entering into so curious a subject, desired him to reserve it for some future conversation. He seemed greatly disconcerted ; but being near the door, which stood open, I took my leave and retired. The next morning I left Philadelphia ; nor did I think any more of

of this occurrence till I arrived at Rhode Island; where I was informed that the chief, if not sole, instances of insanity shewn by this unhappy young man, were some attempts which he had made to kill a clergyman of the church of England. That he had been educated to be a teacher amongst the congregationalists, but had taken it into his head, that he could never gain heaven, or be happy, but by committing so heroic and meritorious an action. The very evening of his confinement he was prevented from fulfilling his purpose, in the instant when he was raising up his hand to plunge a knife into the back of a clergyman, who was reading the funeral service, in the presence of a large congregation. What his intentions were in regard to myself, I cannot pretend to say: he offered me no violence; but those at Rhode Island of his acquaintance, to whom I related this transaction, were fully persuaded that he was far from being cured of his distemper*.

I left Philadelphia the 6th of July, and travelled in the stage as far as Sheminey-ferry, about seventeen miles; where I was overtaken by a gentleman and some ladies of my acquaintance, who were going a few miles farther upon a party of pleasure. They were so obliging as to make room for me in one of their chaises, and we proceeded and dined together at Bristol, a small town upon the Delaware, opposite Burlington: in the afternoon we went ten miles higher up the river, and ferried over to Trenton, situated in the Jerseys. This is built on the east side of the Delaware, and contains about a hundred houses. It has nothing remarkable; there is a church, a Quaker's, and Presbyterian meeting-house, and barracks for three hundred men. From hence we went to Sir John Sinclair's, at the falls of Delaware, about a mile above Trenton, a pleasant rural retirement; where we spent a most agreeable evening. In the morning, the company returned to Philadelphia; and, having hired a chaise, I proceeded to Prince-town, twelve miles distant.

At this place there is a handsome school and college for the education of Dissenters; erected upon the plan of those in Scotland. There are about twenty boys in the grammar-school, and sixty in the college: at present there are only two professors, besides the provost; but they intend, as their fund increases, which is yet very small, and does not exceed 2000*l.* currency, to add to this number. The building is extremely convenient, airy, and spacious; and has a chapel and other proper offices. Two students are in each set of apartments, which consists of a large bed-room with a fire-place, and two studies. There is a small collection of books, a few instruments,

* Since my return to Europe, I have been informed of an instance similar to this, which happened at Florence. A gentleman had taken it into his head that a very large diamond lay buried under a mountain which stood upon his estate, and was near ruining himself and his family by digging for it. His friends, by some contrivance or other, got him away to Florence, and placed him under the care of the late celebrated Dr. Cocchi. He there appeared perfectly composed, talked very rationally, and, having been well educated, afforded great entertainment to the doctor and his friends, who conversed with him. One day as they were sitting together, he mentioned to the doctor, that it was very hard he should be deprived of his liberty, when he was perfectly well; and that it was only a scheme of his relations to keep him in confinement, in order that they might enjoy his estate. The doctor, who had perceived no marks of insanity, began to be staggered; and promised, in case he should see no reason to alter his sentiments, to sign a certificate of his being well on such a day, in order to its being sent to England, that he might have his release. The day arrived, and the doctor was preparing to perform his promise; but whether by design, on perceiving something particular in the looks of his patient, or by accident, I could not learn, he said to the gentleman; "Now, Sir, I beg from this time that you will think no more of this foolish affair of the mountain and diamond." "Not think of the diamond!" said the madman; "it is for this reason that I want my liberty: I know exactly the spot where it lies; and I will have it in my possession before I am a year older."

This story was related to me in Tuscany, and I had no reason to question the truth of it.

and

and some natural curiosities. The expence to a student for room-rent, commons, and tutorage, amounts to 25l. currency per year. The provost has a salary of 200l. currency, and the professors 50l. each. The name of the college is Nassau-Hall. — From hence, in the afternoon, I proceeded to Brunswick, eighteen miles farther, a small town of about a hundred houses, situated upon Raritan river; where there are also very neat barracks for 300 men, a church, and a Presbyterian meeting-house. It is celebrated for the number of its beauties; and, indeed, at this place and Philadelphia were the handsomest women that I saw in America. At a small distance from the town is a copper-mine belonging to a Mr. French, (I was told) a pretty good one. The next day I rode up the river, about nine miles to the Raritan hills, to see a small cascade, which falls about fifteen or twenty feet, very romantically, from between two rocks. The country I passed through is exceedingly rich and beautiful; and the banks of the river are covered with gentlemen's houses. At one of these I had an opportunity of seeing some good portraits of Vandyke, and several other small Dutch paintings.

On Monday the 7th, I proceeded to Perth-Amboy, twelve miles, the capital of the East Jerseys, which is pleasantly situated upon a neck of land, included between the Raritan and Amboy rivers and a large open bay. This is generally the place of the governor's residence; and alternately, here and at Burlington, the capital of the West Jerseys, are held the assemblies, and other public meetings: it contains about a hundred houses, and has a very fine barracks for three hundred men. In the afternoon I travelled sixteen miles farther to Elizabeth-town, leaving Woodbridge, a small village where there is a printing-office, a little on my right hand. Elizabeth-town is built upon a small creek or river that falls into Newark-bay, and contains between two and three hundred houses. It has a court-house, a church, and a meeting-house; and barracks also like those abovementioned.

The next morning I rode out, in order to visit Pasaic Falls, distant about twenty-three miles, and had a very agreeable tour. After riding six miles, I came to a town called Newark, built in an irregular scattered manner, after the fashion of some of our villages in England, near two miles in length. It has a church erected in the Gothic taste with a spire, the first I had seen in America; and some other inconsiderable public buildings. Immediately on my leaving this place, I came upon the banks of Second, or Pasaic river, along which I travelled seventeen or eighteen miles to the Falls, through a rich country, interspersed with fine fields and gentlemen's seats.

The Falls are very extraordinary, different from any I had hitherto met with in America. The river is about forty yards broad, and runs with a very swift current, till coming to a deep chasm or cleft which crosses the channel, it falls above seventy feet perpendicular in one intire sheet. One end of the cleft is closed up, and the water rushes out at the other with incredible rapidity, in an acute angle to its former direction, and is received into a large basin. Hence it takes a winding course through the rocks, and spreads again into a very considerable channel. The cleft is from four to twelve feet broad. The spray formed two beautiful (viz. the primary and secondary) rainbows, and helped to make as fine a scene as imagination could conceive. This extraordinary phenomenon is supposed to have been produced by an earthquake. The fate of two Indians is delivered down by tradition, who, venturing too near the Falls in a canoe, were carried down the precipice, and dashed to pieces. Thirty or forty yards above the great Fall, is another, a most beautiful one, gliding over some ledges of rocks, each two or three feet perpendicular, which heightens the scene very much.



View of Passaic Falls from the East.

London: Published by Longman, Hurst, Rees, Orme & Brown, Paternoster Row, July 1. 1842.



View of Passaic Falls, from the South.

From hence I returned, and in my way crossed over the river to Colonel John Schuyler's copper-mines, where there is a very rich vein of ore, and a fire-engine erected upon common principles.

After this I went down two miles farther to the park and gardens of this gentleman's brother, Colonel Peter Schuyler. In the gardens is a very large collection of citrons, oranges, limes, lemons, balsams of Peru, aloes, pomegranates, and other tropical plants; and in the park I saw several American and English deer, and three or four elks or moose-deer. I arrived at Elizabeth-town in the evening, not a little entertained with my expedition, but exceedingly fatigued with the violent heat of the weather, and the many musquitoes that had infested me.

Before I take leave of the Jerseys, it is necessary I should give some account of this province. New Jersey is situated between the 39th and 42d degree of north latitude, and about seventy-five degrees west longitude: it is bounded on the east by the Atlantic, on the west by Pennsylvania, or to speak more properly the Delaware; on the south by Delaware-bay; and on the north by Hudson's river and the province of New York. The climate is nearly the same as that of Pennsylvania; and the soil, which is a kind of red slate, is so exceedingly rich, that in a short time after it has been turned up and exposed to the air and moisture, it is converted into a species of marle*.

New Jersey has very great natural advantages of hills, valleys, rivers, and large bays. The Delaware is on one side, and Hudson's river on the other; besides which it has the Raritan, Passaic, and Amboy rivers; and Newark and New York bays. It produces vast quantities of grain, besides hemp, flax, hay, Indian corn, and other articles. It is divided into eleven counties, and has several small towns, though not one of consideration. The number of its inhabitants is supposed to be 70,000: of which, all males between sixteen and sixty, negroes excepted, are obliged to serve in the militia. There is no foreign trade carried on from this province; for the inhabitants sell their produce to the merchants of Philadelphia and New York, and take in return European goods and other necessaries of life. They have some trifling manufactures of their own, but nothing that deserves mentioning.

The government consists of a governor, twelve counsellors, and a house of representatives of about twenty-six members, the two former nominated by the King, the latter elected by the people. Each branch has a negative: they meet at Amboy and at Burlington alternately. The governor's salary, with perquisites, is about 800 or 1000l. sterling a-year: he is not allowed a house to reside in, but is obliged to hire one at his own expence. There are several courts of judicature here, much like those of the other provinces. The justices hold quarterly sessions for petty larcenies, and trifling causes; and the supreme judge, with two assistant justices, holds, once a year, a general assize, throughout the province, of oyer and terminer, and common pleas. He holds also annually four supreme courts, alternately at Amboy and Burlington, of King's bench, common pleas, and exchequer. The offices of chancellor and vice-admiral, are executed by the governor; and the dernier resort is to His Majesty in council.

There is properly no established religion in this province, and the inhabitants are of various persuasions: the society sends six missionaries, who are generally well re-

* Since my return from America, I have met with a gentleman (Edward Wortley Montagu, Esquire) who had visited the Holy Land. He described the soil of that country to be similar in almost every circumstance to this of the Jerseys. He said it appeared to be of a red stony substance, sterile, and incapable of producing any thing worth the cultivation; but that being broken up and exposed to the air, it became exceedingly mellow, and was fertile in the highest degree.

ceived; and the church gains ground daily. Their salaries are about the same as in Pennsylvania.

Arts and sciences are here, as in the other parts of America, just dawning. The college will in time, without doubt, be of considerable advantage, but being yet in its infancy, it has not had an opportunity of operating, or effecting any visible improvement.

The New Jersey men, as to character, are like most country gentlemen; good-natured, hospitable, and of a more liberal turn than their neighbours the Pennsylvanians. They live altogether upon their estates, and are literally gentlemen farmers. The country in its present state can scarcely be called flourishing; for although it is extremely well cultivated, thickly seated, and the garden of North America, yet, having no foreign trade, it is deprived of those riches and advantages, which it would otherwise soon acquire. There have been some attempts to remedy this defect; but whether from the difficulty of diverting a thing out of a channel in which it has long flowed, or from want of propriety or perseverance in the measures, I am unable to say; but the truth is, they have not succeeded. Upon the whole, however, this province may be called a rich one: during the present war it has raised considerable supplies, having seldom had less than 1000 men in pay, with a leader (Colonel Schuyler) at their head, who has done honour to his country by his patriotic and public spirit. The paper currency of this colony is at about 70 per cent. discount, but in very good repute; and preferred by the Pennsylvanians and New Yorkers, to that of their own provinces.

On Wednesday the 9th of July, I crossed over to Staten Island, in the province of New York; and travelled upon it about nine miles to the point which is opposite New York city.

In my way I had an opportunity of seeing the method of making wampum. This, the reader probably knows is the current money amongst the Indians. It is made of the clam-shell; a shell, consisting within of two colours, purple and white; and in form not unlike a thick oyster-shell. The process of manufacturing it is very simple. It is first clipped to a proper size, which is that of a small oblong parallelopiped, then drilled, and afterward ground to a round smooth surface, and polished. The purple wampum is much more valuable than the white; a very small part of the shell being of that colour.

At the point I embarked for New York; and after a pleasant passage over the bay, which is three leagues wide, and various delightful prospects of rivers, islands, fields, hills, woods, the Narrows, New York city, vessels sailing too and fro, and innumerable porpoises playing upon the surface of the water, in an evening so serene that the hemisphere was not ruffled by a single cloud, arrived there about the setting of the sun.

This city is situated upon the point of a small island, lying open to the bay on one side, and on the others included between the north and east rivers; and commands a fine prospect of water, the Jerseys, Long Island, Staten Island, and several others, which lie scattered in the bay. It contains between two and three thousand houses, and 16 or 17,000 inhabitants, is tolerably well built, and has several good houses. The streets are paved, and very clean, but in general narrow: there are two or three, indeed, which are spacious and airy, particularly the Broad-Way. The houses in this street have most of them a row of trees before them; which form an agreeable shade, and produce a pretty effect. The whole length of the town is something more than a mile; the breadth of it about half an one. The situation is, I believe, esteemed healthy; but

but it is subject to one great inconvenience, which is the want of fresh water ; so that the inhabitants are obliged to have it brought from springs at some distance out of town. There are several public buildings, though but few that deserve attention. The college, when finished, will be exceedingly handsome : it is to be built on three sides of a quadrangle, fronting Hudson's or North river, and will be the most beautifully situated of any college, I believe, in the world. At present only one wing is finished, which is of stone, and consists of twenty-four sets of apartments ; each having a large sitting-room, with a study, and bed-chamber. They are obliged to make use of some of these apartments for a master's lodge, library, chapel, hall, &c. but as soon as the whole shall be completed, there will be proper apartments for each of these offices. The name of it is King's College.

There are two churches in New York, the old or Trinity Church, and the new one, or St. George's Chapel ; both of them large buildings, the former in the Gothic taste, with a spire, the other upon the model of some of the new churches in London. Besides these, there are several other places of religious worship ; namely, two Low Dutch Calvinist churches, one High Dutch ditto, one French ditto, one German Lutheran church, one presbyterian meeting-house, one quakers ditto, one anabaptists ditto, one Moravian ditto, and a Jews synagogue. There is also a very handsome charity-school for sixty poor boys and girls, a good work-house, barracks for a regiment of soldiers, and one of the finest prisons I have ever seen. The court or stadt-house makes no great figure, but it is to be repaired and beautified. There is a quadrangular fort, capable of mounting sixty cannon, though at present there are, I believe, only thirty-two. Within this is the governor's palace, and underneath it a battery capable of mounting ninety-four guns, and barracks for a company or two of soldiers. Upon one of the islands in the bay is an hospital for sick and wounded seamen ; and, upon another, a pest-house. These are the most noted public buildings in and about the city.

The province of New York is situated between the 40th and 45th degree of north latitude, and about 75 degrees west longitude. It lies in a fine climate, and enjoys a very wholesome air. The soil of most parts of it is extremely good, particularly of Long Island : and it has the advantages of a fine harbour, and fine rivers. The bay has a communication with Newark bay, the Sound, Amboy river, and several others : it receives also Hudson's or North river, one of the largest in North America, it being navigable for sloops as far as Albany, above 150 miles : whence, by the Mohock, and other rivers, running through the country of the Six Nations, there is a communication, (excepting a few short carrying places,) with lake Ontario ; and another with the river St. Laurence, through the Lakes George, Champlain, and the river Sorel ; so that this river seems to merit the greatest attention. These waters afford various kinds of fish, black-fish, sea-bass, sheeps-heads, rock-fish, lobsters, and several others, all excellent in their kind. The province in its cultivated state affords grain of all sorts, cattle, hogs, and great variety of English fruits, particularly the New-town pippin. It is divided into ten counties, and has some few towns, but none of any size, except Albany and Schenectady, the former of which is a very considerable place. The number of inhabitants amounts to nearly 100,000 ; 15 or 20,000 of which are supposed to be capable of bearing arms, and of serving in the militia ; but I believe this number is exaggerated, as a considerable part of the 100,000 are negroes, which are imported more frequently into this province than into Pennsylvania. The people carry on an extensive trade, and there are said to be cleared out annually from New York, tons of shipping. They export chiefly grain, flour, pork, skins, furs, pig-iron, lumber,

lumber, and staves. Their manufactures, indeed, are not extensive, nor by any means to be compared with those of Pennsylvania; they make a small quantity of cloth, some linen, hats, shoes, and other articles for wearing apparel. They make glass also, and wampum; refine sugars, which they import from the West Indies; and distil considerable quantities of rum. They also, as well as the Pennsylvanians, till both were restrained by act of parliament, had erected several slitting mills, to make nails, &c. But this is now prohibited, and they are exceedingly dissatisfied at it. They have several other branches of manufactures, but, in general, so inconsiderable, that I shall not take notice of them: one thing it may be necessary to mention, I mean the article of ship-building; about which, in different parts of the province, they employ many hands.

The government of this colony is lodged in the hands of a governor appointed by the crown; a council consisting of twelve members, named by the same authority; and a house of twenty-seven representatives, elected by the people; four for the city and county of New York; two for the city and county of Albany; two for each of the other eight counties; one for the borough of West Chester; one for the township of Shenectady; and one for each of the three manors of Renslaerwyck, Livingston, and Courtland. The legislative power is entirely lodged in their hands, each branch having a negative; except that, as in the other colonies, all laws must have the King's approbation, and not interfere with, or be repugnant to, the laws of Great Britain.

The courts of judicature are similar, I believe, in every respect, to those in the Jerseys.

The established religion is that of the church of England, there being six churches in this province with stipends (to the value of about 50*l.* currency) annexed to each by law. The clergy are twelve in number, who, exclusive of what they acquire by the establishment above-mentioned, or by contributions, receive, as missionaries from the Society for the Propagation of the Gospel, 50*l.* sterling each. Besides the religion of the church of England, there is a variety of others: dissenters of all denominations, particularly presbyterians, abound in great numbers, and there are some few Roman Catholics.

Arts and sciences have made no greater progress here than in the other colonies; but as a subscription library has been lately opened, and every one seems zealous to promote learning, it may be hoped they will hereafter advance faster than they have done hitherto. The college is established upon the same plan as that in the Jerseys, except that this at New York professes the principles of the church of England. At present the state of it is far from being flourishing, or so good as might be wished. Its fund does not exceed 10,000*l.* currency, and there is a great scarcity of professors. A commencement was held, nevertheless, this summer, and seven gentlemen took degrees. There are in it at this time about twenty-five students. The president, Dr. Johnson, is a very worthy and learned man, but rather too far advanced in life to have the direction of so new an institution. The late Dr. Bristow left to this college a fine library, of which they are in daily expectation.

The inhabitants of New York, in their character, very much resemble the Pennsylvanians: more than half of them are Dutch, and almost all traders: they are, therefore, habitually frugal, industrious, and parsimonious. Being, however, of different nations, different languages, and different religions, it is almost impossible to give them any precise or determinate character. The women are handsome and agreeable; though rather more reserved than the Philadelphian ladies. Their amusements are

much the same as in Pennsylvania; viz. balls, and sleighing expeditions in the winter; and, in the summer, going in parties upon the water, and fishing; or making excursions into the country. There are several houses pleasantly situated upon East river, near New York, where it is common to have turtle-feasts: these happen once or twice in a week. Thirty or forty gentlemen and ladies meet and dine together, drink tea in the afternoon, fish and amuse themselves till evening, and then return home in Italian chaises, (the fashionable carriage in this and most parts of America, Virginia excepted, where they chiefly make use of coaches, and these commonly drawn by six horses,) a gentleman and lady in each chaise. In the way there is a bridge, about three miles distant from New York, which you always pass over as you return, called the Kissing-bridge; where it is a part of the etiquette to salute the lady who has put herself under your protection.

The present state of this province is flourishing: it has an extensive trade to many parts of the world, particularly to the West Indies; and has acquired great riches by the commerce which it has carried on, under flags of truce, to Cape François, and Monte-Christo. The troops, by having made it the place of their general rendezvous, have also enriched it very much. However, it is burthened with taxes, and the present public debt amounts to more than 300,000*l.* currency. The taxes are laid upon estates real and personal; and there are duties upon negroes, and other importations. The provincial troops are about 2,600 men. The difference of exchange between currency and bills, is from 70 to 80 per cent.

Before I left New York, I took a ride upon Long Island, the richest spot, in the opinion of the New Yorkers, of all America; and where they generally have their villas, or country houses. It is undeniably beautiful, and some parts of it are remarkably fertile, but not equal, I think, to the Jerseys. The length of it is something more than 100 miles, and the breadth 25. About 15 or 16 miles from the west end of it, there opens a large plain between 20 and 30 miles long, and four or five broad. There is not a tree growing upon it, and it is asserted that there never were any. Strangers are always carried to see this place, as a great curiosity, and the only one of the kind in North America.

Tuesday the 5th of August, being indisposed, and unable to travel any farther by land, I embarked on board a brigantine for Rhode Island. We made sail up the Sound with a fair wind, and after two hours, passed through Hell-gate. It is impossible to go through this place without recalling to mind the description of Scylla and Charybdis. The breadth of the Sound is here half a mile, but the channel is very narrow, not exceeding eighty yards: the water runs with great rapidity, and in different currents, only one of which will carry a vessel through with safety; for, on one side, there is a shoal of rocks just peeping above the water; and, on the other, a dreadful vortex produced by a rock lying about nine feet under the surface: if therefore you get into any but the right current, you are either dashed upon the shoal, or else sucked into the eddy, whirled round with incredible rapidity, and at length swallowed up in the vortex. There are exceeding good pilots to navigate vessels through this place, notwithstanding which, they are frequently lost. The proper time of passing it is at high water. We had pleasant weather during the passage, which is about seventy leagues, with beautiful views of Long Island and Connecticut; and arrived in the harbour at Newport the 7th of August.

This town is situated upon a small island, about twelve miles in length, and five or six in breadth, called Rhode Island, whence the province takes its name. It is the

capital city, and contains 800, or 1000 houses, chiefly built of wood; and 6 or 7000 inhabitants. There are few buildings in it worth notice. The court-house is indeed handsome, and of brick; and there is a public library, built in the form of a Grecian temple, and by no means inelegant. It is of the Doric order, and has a portico in front with four pillars, supporting a pediment; but the whole is spoilt by two small wings, which are annexed to it. The foundation of a very pretty building is laid for the use of the free-masons, to serve also occasionally for an assembly-room; and there is going to be erected a market-house, upon a very elegant design. The places of public worship, except the Jews synagogue, are all of wood; and not one of them is worth looking at. They consist chiefly of a church, two presbyterian meeting-houses, one quakers ditto, three anabaptists ditto, one Moravian ditto, and the synagogue above-mentioned. This building was designed, as indeed were several of the others, by a Mr. Harrison, an ingenious English gentleman who lives here. It will be extremely elegant within when completed: but the outside is totally spoilt by a school, which the Jews would have annexed to it for the education of their children.—Upon a small island, before the town, is part of a fine fortification, designed to consist of a pentagon fort, and an upper and lower battery. Only two of the curtains, and a ravelin, are yet finished; and it is doubted whether the whole will ever be completed. There are now mounted upon it 26 cannon; but the works, when complete, will require above 150.—At the entrance of the harbour there is likewise an exceeding good light-house.—These are the chief public buildings.

Three miles from the town is an indifferent wooden house, built by Dean Berkley, when he was in these parts: the situation is low, but commands a fine view of the ocean, and of some wild rugged rocks that are on the left hand of it. They relate here several stories of the dean's wild and chimerical notions; which, as they are characteristic of that extraordinary man, deserve to be taken notice of: one in particular I must beg the reader's indulgence to allow me to repeat to him. The dean had formed the plan of building a town upon the rocks which I have just now taken notice of, and of cutting a road through a sandy beach which lies a little below it, in order that ships might come up and be sheltered in bad weather. He was so full of this project, as one day to say to one Smibert, a designer, whom he had brought over with him from Europe, on the latter's asking some ludicrous question concerning the future importance of the place: "Truly, you have very little foresight, for in fifty years time every foot of land in this place will be as valuable as the land in Cheapside." The dean's house, notwithstanding his prediction, is at present nothing better than a farmhouse, and his library is converted into the dairy: when he left America, he gave it to the college at Newhaven in Connecticut, who have let it to a farmer on a long lease: his books he divided between this college and that in Massachusetts. The dean is said to have written in this place *The Minute Philosopher*.

The province of Rhode Island is situated between the 41st and 42d degree of north latitude; and about 72 or 73 degrees west longitude; in the most healthy climate of North America. The winters are severe, though not equally so with those of the other provinces; but the summers are delightful, especially in the island; the violent and excessive heats, to which America is in general subject, being allayed by the cool and temperate breezes that come from the sea. The soil is tolerably good, though rather too stony; its natural produce is maize or Indian corn, with a variety of shrubs and trees. It produces in particular the button-tree; the spruce-pine, of the young twigs of which is made excellent beer; and the pseudo-acacia, or locust-tree; but none of those

those fine flowering trees, which are such an ornament to the woods in Carolina and Virginia. It enjoys many advantages, has several large rivers, and one of the finest harbours in the world. Fish are in the greatest plenty and perfection, particularly the tataag or black-fish, lobsters, and sea bass. In its cultivated state, it produces very little, except sheep and horned cattle; the whole province being laid out into pasture or grazing ground. The horses are bony and strong, and the oxen much the largest in America; several of them weighing from 16 to 1800 weight. The butter and cheese are excellent.

The province of Rhode Island is divided into counties and townships; of the former there are four or five, but they are exceedingly small; of the latter between twenty and thirty; the towns themselves are inconsiderable villages: however, they send members to the assembly, in the whole about seventy. The number of inhabitants, with Negroes, and Indians, of which in this province there are several hundreds, amounts to 35,000. As the province affords but few commodities for exportation; horses, provisions, and an inconsiderable quantity of grain, with spermaceti candles, being the chief articles; they are obliged to Connecticut, and the neighbouring colonies, for most of their traffic; and by their means they carry on an extensive trade. Their mode of commerce is this; they trade to Great Britain, Holland, Africa, the West Indies, and the neighbouring colonies; from each of which places they import the following articles: from Great Britain, dry goods; from Holland, money; from Africa, slaves; from the West Indies, sugars, coffee, and molasses; and from the neighbouring colonies, lumber and provisions: and with what they purchase in one place they make their returns in another. Thus with the money they get in Holland, they pay their merchants in London; the sugars they procure in the West Indies, they carry to Holland; the slaves they fetch from Africa they send to the West Indies, together with lumber and provisions, which they get from the neighbouring colonies: the rum that they distil they export to Africa; and with the dry goods, which they purchase in London, they traffick in the neighbouring colonies. By this kind of circular commerce they subsist and grow rich. They have besides these some other inconsiderable branches of trade, but nothing worth mentioning. They have very few manufactures; they distil rum and make spermaceti candles; but in the article of dry goods, they are far behind the people of New York and Pennsylvania.

The government of this province is intirely democratical; every officer, except the collector of the customs, being appointed, I believe, either immediately by the people, or by the general assembly. The people chuse annually a governor, lieutenant-governor, and ten assistants, which constitute an upper-house. The representatives, or lower-house, are elected every half year. These jointly have the appointment of all other public officers, (except the recorder, treasurer, and attorney-general, which are appointed likewise annually by the people) both military and civil; are invested with the powers of legislation, of regulating the militia, and of performing all other acts of government. The governor has no negative, but votes with the assistants, and in case of an equality has a casting voice. The assembly, or two houses united, are obliged to sit immediately after each election; at Newport in the summer, and in the winter alternately at Providence and South Kingston in Narraganset: they adjourn themselves, but may be called together, notwithstanding such adjournment, upon any urgent occasion by the governor. No assistant, or representative, is allowed any salary or pay for his attendance or service.

There

There are several courts of judicature. The assembly nominates annually so many justices for each township, as are deemed necessary. These have power to join people in matrimony, and to exercise other acts of authority usually granted to this order of magistrates. Any two of them may hear causes concerning small debts and trespasses; and three may try criminals for thefts, not exceeding ten pounds currency. Appeals in civil causes are allowed to the inferior courts of common-pleas; in criminal ones to the sessions of the peace; and in these the determinations are final.—The sessions are held in each county twice every year by five or more justices; they adjudge all matters relating to the preservation of the peace, and the punishment of criminals, except in cases of death. Appeals are allowed from this court, in all causes that have originated in it, to the superior one.—The inferior courts of common-pleas sit twice every year in each county, and are held by three or more justices. They take cognizance of all civil causes whatsoever, triable at common law; and if any one thinks himself aggrieved here, he may appeal to the superior one; which is held also annually twice in each county, by three judges, and which exercises all the authority of a court of king's bench, common-pleas, and exchequer. The dernier resort is to the King in council, but this only in cases of 300*l.* value, new tenor. The people have the power of pardoning criminals, except in cases of piracy, murder, or high treason; and then it is doubted whether they can even reprieve.

There is no established form of religion here; but church of England men, independents, quakers, anabaptists, Moravians, Jews, and all other sects whatsoever, have liberty to exercise their several professions. The society for the propagation of the gospel sends only four missionaries.

Arts and sciences are almost unknown, except to some few individuals; and there are no public seminaries of learning; nor do the Rhode Islanders in general seem to regret the want of them. The institution of a library society, which has lately taken place, may possibly in time produce a change in these matters.

The character of the Rhode Islanders is by no means engaging, or amiable: a circumstance principally owing to their form of government. Their men in power, from the highest to the lowest, are dependent upon the people, and frequently act without that strict regard to probity and honour, which ought invariably to influence and direct mankind. The private people are cunning, deceitful, and selfish: they live almost entirely by unfair and illicit trading. Their magistrates are partial and corrupt: and it is folly to expect justice in their courts of judicature; for he, who has the greatest influence, is generally found to have the fairest cause*. Were the governor to interpose his authority, were he to refuse to grant flags of truce†, or not to wink at abuses;

* The form of their judicial oath, or affirmation (says Douglas, in his summary), does not invoke the judgments of the omniscient God, who sees in secret, but only upon peril of the penalty of perjury.—This does not seem (adds the same author in a note) to be a sacred or solemn oath, and may be illustrated by the story of two profligate thieves; one of them had stolen something, and told his friend of it: well, says his friend, but did any body see you? No: then, says his friend, it is yours as much as if you had bought it with your money. Vol. ii. p. 95.

† It was usual during the late war for several governors in North America, on receiving a pecuniary consideration, to grant to the merchants flags of truce; by which they were licensed to go to the French West Indian islands, in order to exchange prisoners. The real scope and design of the voyage was, to carry on a prohibited trade with the French, and to supply them with stores and provisions. Two or three prisoners were sufficient to cover the design; and in order to have a store in readiness, they seldom carried more. By this abuse both governors and merchants acquired great riches. Very plausible arguments indeed might be adduced against prohibiting, or even restraining a commerce of that nature: but as the wisdom of government

abuses; he would at the expiration of the year be excluded from his office, the only thing perhaps which he has to subsist upon. Were the judges to act with impartiality, and to decide a cause to the prejudice or disadvantage of any great or popular leader, they would probably never be re-elected; indeed, they are incapable in general of determining the merits of a suit, for they are exceedingly illiterate, and, where they have nothing to make them partial, are managed almost entirely by the lawyers. In short, to give an idea of the wretched state of this colony, it has happened more than once, that a person has had sufficient influence to procure a fresh emission of paper-money, solely to defraud his creditors: for having perhaps borrowed a considerable sum of money, when the difference of exchange has been 1200 per cent. he has afterward, under sanction of the law, repaid only the same nominal sum in new currency, when the difference has amounted perhaps to 2500 per cent.—Such alas! is the situation and character of this colony. It is needless, after this, to observe that it is in a very declining state; for it is impossible that it should prosper under such abuses. Its West Indian trade has diminished; owing indeed, in some measure, to the other colonies having entered more largely into this lucrative branch of commerce: it has lost during the war, by the enemy, above 150 vessels: its own privateers, and it has generally had a great many, have had very ill success: having kept up a regiment of provincial troops, it has also been loaded with taxes, and many of the people have been oppressed by the mode of collecting them: for, the assembly having determined the quota of each township, the inhabitants have been assessed by the town-council*, consisting of the assistants residing there, the justices of the town, and a few freeholders elected annually by the freemen; and these have been generally partial in their assessments, as must necessarily happen under a combination of such circumstances.—After having said so much to the disadvantage of this colony, I should be guilty of injustice and ingratitude, were I not to declare that there are many worthy gentlemen in it, who see the misfortunes of their country, and lament them; who are sensible that they arise from the wretched nature of the government, and wish to have it altered; who are courteous and polite; kind and hospitable to strangers; and capable of great acts of generosity and goodness, as I myself experienced during a very severe fit of sickness which I lay under at this place. — The paper-money here is as bad as it is possible to be; the difference of exchange being at least 2500 per cent.

The 4th of September I took leave of Newport, and having crossed over the river at Bristol-ferry, where it is about a mile broad, and two other inconsiderable ferries, I arrived in the evening at Providence. This is the chief town of what was formerly called Providence Plantation in Narraganset, and is at present the second considerable town in the province of Rhode Island. It is situated upon a pretty large river, and is distant from Newport about thirty miles. In the morning I set out for Boston, and

ment did think fit, and probably with better reason, to forbid it; nothing could excuse the corrupt and mercenary spirit of those governors, who presumed to connive at and encourage it.—The honourable Francis Fauquier, lieutenant-governor of Virginia, who, amongst some few others, never could be prevailed upon to countenance it, refused at one time an offer of near 200l. for the grant of a permit to make a single voyage.

* Each township is managed by a town-council, consisting of the assistants who reside in the town, the justices of the town, and six freeholders chosen annually by the freemen of the town; the major part of them is a quorum, with full power to manage the affairs and interest of the town to which they respectively belong, to grant licences to public houses: and are a probate office for proving wills, and granting administration, with appeal to governor and council, as supreme ordinary. Douglas's Summary, Vol. ii. p. 85.

arrived

arrived there about sun-set, after a journey of five and forty miles. The country, which I travelled over, is chiefly grazing ground, laid out into neat inclosures, surrounded with stone walls, and rows of pseudo acacia or locust-trees, which are laid with their leaves to manure and fertilize the land. I passed over a beautiful fall of water in Pantucket river, upon a bridge, which is built directly over it. The fall is about twenty feet high, through several chafins in a rock, which runs diametrically cross it, and serves as a dam to hold up the water. There are two or three mills, which have been erected for the advantage of having the different spouts or streams of water conducted to their respective wheels. These have taken very much from the beauty of the scene; which would otherwise be transcendently elegant; for the fall, though not large or upon a great scale, is by far the most romantic and picturesque of any that I met with in my tour.

During the course of my ride from Newport, I observed prodigious flights of wild pigeons: they directed their course to the southward, and the hemisphere was never intirely free from them. They are birds of passage, of beautiful plumage, and are excellent eating. The accounts given of their numbers are almost incredible; yet they are so well attested, and the opportunities of proving the truth of them are so frequent, as not to admit of their being called in question. Towards evening they generally fettle upon trees, and sit one upon another in such crowds, as sometimes to break down the largest branches. The inhabitants, at such times, go out with long poles, and knock numbers of them on the head upon the roost; for they are either so fatigued by their flight, or terrified by the obscurity of the night, that they will not move, or take wing, without some great and uncommon noise to alarm them. I met with scarcely any other food at the ordinaries where I put up: and during their flight, the common people subsist almost wholly upon them.

Boston, the metropolis of Massachusetts-Bay, in New England, is one of the largest and most flourishing towns in North America. It is situated upon a peninsula, or rather an island joined to the continent by an isthmus or narrow neck of land half a mile in length, at the bottom of a spacious and noble harbour, defended from the sea by a number of small islands. The length of it is nearly two miles, and the breadth of it half a one; and it is supposed to contain 3000 houses, and 18 or 20,000 inhabitants. At the entrance of the harbour stands a very good light-house; and upon an island, about a league from the town, a considerable castle, mounting near 150 cannon: there are several good batteries about it, and one in particular very strong, built by Mr. Shirley. There are also two batteries in the town, for 16 or 20 guns each; but they are not, I believe, of any force. The buildings in Boston are in general good; the streets are open and spacious, and well paved; and the whole has much the air of some of our best county towns in England.—The country round about it is exceedingly delightful; and from a hill, which stands close to the town, where there is a beacon to alarm the neighbourhood in case of any surprize, is one of the finest prospects, the most beautifully variegated, and richly grouped, of any without exception that I have ever seen.

The chief public buildings are, three churches; thirteen or fourteen meeting-houses; the governor's palace; the court-house, or exchange; Faneuils-hall; a linen-manufacturing-house; a work-house; a bridewell; a public granary; and a very fine wharf, at least half a mile long, undertaken at the expence of a number of private gentlemen, for the advantage of unloading and loading vessels. Most of these buildings are handsome: the church, called King's Chapel, is exceedingly elegant; and fitted up in the Corinthian taste. There is also an elegant private concert-room, highly finished in the Ionic manner.

manner.—I had reason to think the situation of Boston unhealthy, at least in this season of the year; as there were frequent funerals every night during my stay there.

The situation of the province of Massachusetts Bay, including the district of Plymouth*, is between the 41st and 43d degree of north latitude, and about 72 degrees west longitude. The climate, soil, natural produce, and improved state of it, are much the same as of Rhode Island. It is divided into counties and townships†; and each township, if it contains forty freeholders‡, has a right to send a member to the assembly§, the present number of representatives amounts to between 130 and 140; of which Boston sends four.

The number of souls in this province is supposed to amount to 200,000; and 40,000 of them to be capable of bearing arms. They carry on a considerable traffic, chiefly in the manner of the Rhode Islanders; but have some material articles for exportation, which the Rhode Islanders have not, except in a very trifling degree; these are salt-fish and vessels. Of the latter they build annually a great number, and send them, laden with cargoes of the former, to Great Britain, where they sell them. They clear out from Boston, Salem, Marblehead, and the different ports in this province, yearly, about ton of shipping. Exclusive of these articles, their manufactures are not large; those of spirits, fish-oil, and iron, are, I believe, the most considerable. They fabricate beaver-hats, which they sell for a moidore a-piece; and some years ago they erected a manufactory, with a design to encourage the Irish settlers to make linens; but at the breaking out of the war the price of labour was enhanced so much that it was impossible to carry it on. Like the rest of the colonies they also endeavour to make woollens; but they have not yet been able to bring them to any degree of perfection; indeed, it is an article in which I think they will not easily succeed; for the American wool is not only coarse, but in comparison of the English, exceedingly short. Upon the best inquiry I could make, I was not able to discover that any one had ever seen a staple of American wool longer than seven inches; whereas in the counties of Lincoln and Leicester, they are frequently twenty-two || inches long. In the southern colonies, at least in those parts where I travelled, there is scarcely any herbage¶; and whether it is owing to this, or to the excessive heats, I am ignorant, the wool is short and hairy. The northern colonies have indeed greater plenty of herbage, but are for some months covered with snow; and without a degree of attention and care in housing the sheep, and guarding them against accidents, and wild beasts, which would not easily be compensated, it would be very difficult to increase their numbers to any great amount. The Americans seem very conscious of this fact, and notwithstanding a very

* Sagadahoc and the Main, very large territories, lying north of New Hampshire, belong also to the province of Massachusetts Bay; they were annexed to it by the new charter of 1691. The Main forms one county called the county of York, and sends three members to the council; Sagadahoc, which is annexed to it, sends one.

† Townships are generally six miles square, and divided into sixty-three equal lots, viz. one lot for the first settled minister as inheritance, one lot for the ministry as glebe-lands, one lot for the benefit of a school; the other sixty lots to sixty persons or families, who, within five years from the grant, are to erect a dwelling-house, and clear seven acres of land, fit for mowing or ploughing, &c.

‡ By the charter, every freeholder should possess 40s. freehold, or 50l. personal estate; but I believe this article has not been strictly adhered to.

§ Every town, containing forty freeholders, has a "right" to send a member to the assembly, but is not absolutely "obliged" to do so, unless it contains eighty freeholders.

|| The common average length, I am told, is about sixteen inches.

¶ I speak of the country in general; in particular spots, as at Greenway Court, the herbage is very fine and luxuriant.

severe prohibition, contrive to procure from England every year a considerable number of rams, in order to improve and multiply the breed. What the lands beyond the Alleghenny and upon the banks of the Ohio may be, I do not know; they are said to be very rich: but the climate, I believe, is not less severe; and I think, upon collating different accounts, that the severity of heat and cold is not much abated by cultivation. The air becomes drier and more wholesome, in proportion as the woods are cut down, and the ground is cleared and cultivated; but the cold is not less piercing, nor the snow less frequent. I think therefore upon the whole, that America, though it may with particular care and attention, produce small quantities of tolerably good wool, will yet never be able to produce it in such plenty and of such a quality as to serve for the necessary consumption of its inhabitants.

The government of this province is lodged in the hands of a governor or lieutenant-governor, appointed by the king; a counsel of twenty-eight persons chosen annually, with the governor's approbation, by the general assembly*; and a house of representatives† annually elected by the freeholders. The governor commissions all the militia, and other military officers; and, with consent of the council, also nominates and appoints all civil officers, except those that are concerned in the revenue. He calls and adjourns the assembly, and has in every respect a very extensive authority. His salary, with perquisites, amounts to about 1,300*l.* sterling per year. The governor and council together have the probate of wills, and the power of granting administrations and divorces.

There are several courts of judicature. All actions under twenty shillings sterling are cognizable by a justice of peace, from whose determination there lies an appeal to the inferior county-court of common-pleas; and from hence to the superior provincial court in its circuits, which is also a court of oyer and terminer in criminal affairs, and is held by a chief justice and some assistant judges. In this court, if the determination is not satisfactory, a rehearing of the cause may be had with a different jury‡; and even, by petition to the general assembly, a second rehearing: the dernier resort is to His Majesty's council, but this is only in cases of 300*l.* sterling value; and the appeal must be made within fourteen days after judgment.

The established religion here, as in all the other provinces of New England, is that of the congregationalists; a religion different in some trifling articles, though none very material, from the Presbyterian. There are, besides these however, great numbers of people of different persuasions, particularly of the religion of the church of England, which seems to gain ground, and to become more fashionable every day. A church has been lately erected at Cambridge, within sight of the college, which has greatly alarmed the congregationalists, who consider it as the most fatal stroke that could possibly have been levelled at their religion. The building is elegant, and the minister of it (the reverend Mr. Apthorpe,) is a young man of shining parts, great learning, and pure and engaging manners||.

* They are chosen by the new representatives, and the last year's counsellors; so that each counsellor has a vote in his own re-election. The governor has a negative to every counsellor's election, without being obliged to assign a reason.

† Each representative must be resident in the township for which he is elected; he must also have a plurality of votes respecting the number of voters, and not in comparison only of the other candidates; he is paid for his attendance and services, and subject to a fine if he neglects them.

‡ Juries are, I believe, appointed partly by lot, and partly by rotation.

|| This gentleman, I have heard, afterward met with so much opposition and persecution from the congregationalists, that he was obliged to resign his cure, to quit the colony, and has since lived in England upon a living, (I believe in Surry,) which was given him by the late Archbishop Secker.

Arts and sciences seem to have made a greater progress here than in any other part of America. Harvard college has been founded above a hundred years; and although it is not upon a perfect plan, yet it has produced a very good effect. The arts are undeniably forwarder in Massachusetts Bay, than either in Pennsylvania or New York. The public buildings are more elegant; and there is a more general turn for music, painting, and the belles lettres.

The character of the inhabitants of this province is much improved, in comparison of what it was; but puritanism and a spirit of persecution is not yet totally extinguished. The gentry of both sexes are hospitable and good-natured; there is an air of civility in their behaviour, but it is constrained by formality and preciseness. Even the women, though easiness of carriage is peculiarly characteristic of their nature, appear here with more stiffness and reserve than in the other colonies. They are formed with symmetry, are handsome, and have fair and delicate complexions; but are said universally, and even proverbially, to have very indifferent teeth.

The lower class of the people are more in the extreme of this character; and which is constantly mentioned as singularly peculiar to them, are impertinently curious and inquisitive. I was told of a gentleman of Philadelphia, who, in travelling through the provinces of New England, having met with many impertinences from this extraordinary turn of character, at length fell upon an expedient almost as extraordinary, to get rid of them. He had observed, when he went into an ordinary*, that every individual of the family had a question or two to propose to him, relative to his history, and that, till each was satisfied, and they had conferred and compared together their information, there was no possibility of procuring any refreshment. He therefore the moment he went into any of these places, inquired for the master, the mistress, the sons, the daughters, the men-servants and the maid-servants; and having assembled them all together, he began in this manner: "Worthy people, I am B. F.† of Philadelphia, by trade a ———, and a bachelor; I have some relations at Boston, to whom I am going to make a visit; my stay will be short, and I shall then return and follow my business, as a prudent man ought to do. This is all I know of myself, and all I can possibly inform you of; I beg therefore that you will have pity upon me and my horse, and give us both some refreshment."

Singular situations and manners will be productive of singular customs, but frequently such as upon slight examination may appear to be the effects of mere grossness of character, will, upon deeper research, be found to proceed from simplicity and innocence. A very extraordinary method of courtship, which is sometimes practised amongst the lower people of this province, and is called tarrying, has given occasion to this reflection. When a man is enamoured of a young woman, and wishes to marry her, he proposes the affair to her parents, (without whose consent no marriage in this colony can take place); if they have no objection, they allow him to tarry with her one night, in order to make his court to her. At their usual time the old couple retire to bed, leaving the young ones to settle matters as they can; who, after having sat up as long as they think proper, get into bed together also, but without pulling off their under garments, in order to prevent scandal. If the parties agree, it is all very well; the banns are published, and they are married without delay. If not they part, and possibly never see each other again; unless, which is an accident that seldom happens, the forsaken fair one prove pregnant, and then the man is obliged to marry her, under pain of excommunication‡.

The

* Inns are so called in America.

† Benjamin Franklin.

‡ A gentleman some time ago travelling upon the frontiers of Virginia, where there are few settlements, was obliged to take up his quarters one evening at a miserable plantation, where, exclusive of a negro or

The province of Massachusetts Bay, has been for some years past, I believe, rather on the decline. Its inhabitants have lost several branches of trade, which they are not likely to recover again. They formerly supplied not only Connecticut, but other parts of the continent, with dry goods, and received specie in return; but since the introduction of paper currency they have been deprived of great part of this commerce. Their ship trade is considerably decreased, owing to their not having been so careful in the construction of vessels as formerly; their fisheries too have not been equally successful; they have had also a considerable number of provincial troops† in pay during the course of the present war, and have been burthened with heavy taxes. These have been laid upon estates real and personal. Some merchants in Boston, I have been credibly informed, have paid near 400*l.* sterling annually. — Assessments are made by particular officers, who, with the select men, constables, overseers, and several others, are elected annually by the freemen, for the direction and management of each particular township.

There is less paper money in this colony than in any other of America; the current coin is chiefly gold and silver; and Boston is the only place, I believe, where there ever was a mint to coin money.

I was told of a very impolitic law in force in this province, which forbids any master or commander of a vessel, to bring strangers into the colony, without giving security that they shall not become chargeable to it.

However, notwithstanding what has been said, Massachusetts Bay is a rich, populous, and well-cultivated province.

I cannot take leave of it without relating a very extraordinary story, communicated to me by persons of undoubted credit, as it further tends to illustrate the character and manners of its inhabitants.

Some years ago, a commander of one of His Majesty's ships of war being stationed at this place, had orders to cruise from time to time, in order to protect our trade and distress the enemy. It happened unluckily that he returned from one of his cruises on a Sunday; and as he had left his lady at Boston, the moment she heard of the ship's arrival, she hastened down to the water's side, in order to receive him. The captain on landing, embraced her with tenderness and affection; this, as there were several spectators by, gave great offence, and was considered as an act of indecency, and a flagrant profanation of the Sabbath. The next day, therefore, he was summoned before the magistrates, who with many severe rebukes and pious exhortations, ordered him to be publickly whipped. The captain stifled his indignation and resentment as much as possible, and as the punishment, from the frequency of it, was not attended with any great degree of ignominy or disgrace, he mixed with the best company, was well received by them, and they were apparently good friends. At length the time of the station expired, and he was recalled; he went, therefore, with seeming concern

two, the family consisted of a man and his wife, and one daughter about sixteen years of age. Being fatigued, he presently desired them to shew him where he was to sleep; accordingly they pointed to a bed in a corner of the room where they were sitting. The gentleman was a little embarrassed, but being excessively weary, he retired, half undressed himself, and got into bed. After some time the old gentlewoman came to bed to him, after her the old gentleman, and last of all the young lady. This, in a country excluded from all civilized society, could only proceed from simplicity and innocence; and indeed it is a general and true observation that forms and observances become necessary, and are attended to, in proportion as manners become corrupt, and it is found expedient to guard against vice, and that design and duplicity of character, which, from the nature of things, will ever prevail in large and cultivated societies.

† Between six and seven thousand, I believe.

to take leave of his worthy friends, and that they might spend one more happy day together before their final separation, he invited the principal magistrates and select men to dine with him on board his ship, on the day of his departure. They accepted the invitation, and nothing could be more joyous and convivial than the entertainment which he gave them. At length the fatal moment arrived that was to separate them; the anchor was apeak, the sails were unfurled, and nothing was wanting but the signal to get under way*. The captain, after taking an affectionate leave of his worthy friends, accompanied them upon deck, where the boatswain and crew were in readiness to receive them. He there thanked them afresh for the civilities they had shown him, of which he said, he should retain an eternal remembrance, and to which he wished it had been in his power to have made a more adequate return. One point of civility only remained to be adjusted between them, which, as it was in his power, so he meant most fully to recompense to them. He then reminded them of what had passed, and ordering the crew to pinion them, had them brought one by one to the gang-way, where the boatswain stripped off their shirts, and with a cat-of-nine-tails laid on the back of each forty stripes save one. They were then, amidst the shouts and acclamations of the crew, shoved into their boats; and the captain immediately getting under way, sailed for England†.

The 12th of October I embarked on board His Majesty's ship the Winchester, of fifty guns, Captain Hale commander, for the river Piscataqua, in New Hampshire; and we came to an anchor there the next day, after a pleasant passage.

The capital of this province is Portsmouth, which is situated upon the river; it is an inconsiderable place, and chiefly built of wood. Very little can be said of the province of New Hampshire, materially different from what has been said of Massachusetts Bay. — The climate, produce, trade, government, religion, and manners of it are much the same. — There are supposed to be about 40,000 inhabitants, 8,000 militia, and 6 or 700 provincial troops. — There are only two missionaries of the church of England, and one of these has lately applied to be removed to Rhode Island. — The chief articles for exportation are fish, cattle, ships, of which they annually build near 200, and masts for the royal navy. These are made of the white pine, and are, I believe, the finest in the world, many of them being forty yards long, and as many inches in diameter. They never cut them down but in times of deep snow, as it would be impossible in any other season to get them down to the river. When the trees are fallen, they yoke seventy or eighty pair of oxen, and drag them along the snow. It is exceedingly difficult to put them first into motion, which they call raising them; and when they have once affected this, they never stop upon any account whatsoever till they arrive at the water's side. Frequently some of the oxen are taken ill, upon which they immediately cut them out of the gears, and are sometimes obliged, I was told, to destroy five or six pair of them. — The forests where these masts grow are reserved to the crown, which appoints a surveyor of them, who is commonly the governor of this province. This is not the only expedient employed by government for the preservation of such trees as may be of use for the royal navy; for there is an act of parliament, I believe, which prohibits under pain of certain fines and penalties, the

* This is usually written "under weigh:" but I am extremely doubtful of the propriety of the phrase.

† This story has lately appeared in one of the English Newspapers, told with much humour, and with some difference respecting the occasion and mode of the captain's punishment. The author cannot take upon himself to say which account may be most exact, but he has chosen to abide by that which he heard at Boston. They either of them serve to characterize the people, and to answer the author's purpose in relating it.

cutting down or destroying of any white pine-tree of specified dimensions, not growing within the boundaries of any township, without His Majesty's licence, in any of the provinces of New England, New York, or New Jersey; a restriction absolutely necessary, whether considered as securing a provision for the navy, or as a check upon that very destructive practice taken from the Indians, of fire-hunting. It used to be the custom for large companies to go into the woods in the winter, and to set fire to the brush and underwood in a circle of several miles. This circle gradually contracting itself, the deer, and other wild animals inclosed, naturally retired from the flames, till at length they got herded together in a very small compass. Then blinded and suffocated by the smoke, and scorched by the fire, which every moment came nearer to them, they forced their way, under the greatest trepidation and dismay, through the flames; and were no sooner got into the open day-light again, than they were shot by the hunters, who stood without, and were in readiness to fire upon them. — The trees included within the circle, although not absolutely burnt down, were so dried and injured, that they never vegetated any more; and as the fire did not only contract itself inwardly, but dilated also outwardly, and sometimes continued burning for several weeks, till rain, or some accidental circumstance put it out; it is incredible what injury and devastation it occasioned in the woods. — I was once a spectator of a similar fire in Virginia, which had happened through accident. Nothing could be more awful and tremendous than the sight. It was of great extent, and burned several weeks before the inhabitants could subdue it. They effected it at last by cutting away the underwood, in wide and long avenues, to leeward of the fire, by which it was deprived of the means of communicating or spreading any farther. — In Virginia (and I believe the other colonies), there is an express act of assembly, passed in the 12th year of his late Majesty, to forbid this practice.

The province of New Hampshire, I was informed at Portsmouth, has grown rich during the war, by the loss of its own vessels, they having been commonly insured above value.

The currency here is extremely bad, not better than that in Rhode Island.

Having travelled over so large a tract of this vast continent, before I bid a final farewell to it, I must beg the reader's indulgence, while I stop for a moment, and as it were from the top of a high eminence, take one general retrospective look at the whole. An Idea, strange as it is visionary, has entered into the minds of the generality of mankind, that empire is travelling westward; and every one is looking forward with eager and impatient expectation to that destined moment, when America is to give law to the rest of the world. But if ever an idea was illusory and fallacious, I am fully persuaded that this will be so.

America is formed for happiness, but not for empire: in a course of 1,200 miles I did not see a single object that solicited charity, but I saw insuperable causes of weakness, which will necessarily prevent its being a potent state.

Our colonies may be distinguished into the southern and northern, separated from each other by the Susquehannah and that imaginary line which divides Maryland from Pennsylvania.

The southern colonies have so many inherent causes of weakness that they never can possess any real strength. The climate operates very powerfully upon them, and renders them indolent, inactive, and unenterprising; this is visible in every line of their character. I myself have been a spectator, and it is not an uncommon sight of a man in the vigour of life, lying upon a couch, and a female slave standing over him, waisting off the flies, and fanning him, while he took his repose.

The southern colonies (Maryland, which is the smallest and most inconsiderable, alone excepted) will never be thickly seated: for as they are not confined within determinate limits, but extend to the westward indefinitely; men, sooner than apply to laborious occupations, occupations militating with their dispositions, and generally considered too as the inheritance and badge of slavery, will gradually retire westward, and settle upon fresh lands, which are said also to be more fertile; where, by the servitude of a negro or two, they may enjoy all the satisfaction of an easy and indolent independency: hence the lands upon the coast will of course remain thin of inhabitants.

The mode of cultivation by slavery is another insurmountable cause of weakness. The number of negroes in the southern colonies is upon the whole nearly equal, if not superior, to that of the white men; and they propagate and increase even faster.—Their condition is truly pitiable; their labour excessively hard, their diet poor and scanty, their treatment cruel and oppressive: they cannot therefore but be a subject of terror to those who so inhumanly tyrannize over them.

The Indians near the frontiers are a still farther formidable cause of subjection. The southern Indians are numerous, and are governed by a sounder policy than formerly: experience has taught them wisdom. They never make war with the colonists without carrying terror and devastation along with them. They sometimes break up intire counties together.—Such is the state of the southern colonies.

The northern colonies are of stronger stamina, but they have other difficulties and disadvantages to struggle with, not less arduous, or more easy to be surmounted than what have been already mentioned. Their limits being defined, they will undoubtedly become exceedingly populous: for though men will readily retire back towards the frontiers of their own colony, yet they will not so easily be induced to settle beyond them, where different laws and politics prevail; and where, in short, they are a different people: but in proportion to want of territory, if we consider the proposition in a general and abstract light, will be want of power: but the northern colonies have still more positive and real disadvantages to contend with. They are composed of people of different nations, different manners, different religions, and different languages. They have a mutual jealousy of each other, fomented by considerations of interest, power, and ascendancy. Religious zeal too, like a smothered fire, is secretly burning in the hearts of the different sectaries that inhabit them, and were it not restrained by laws and superior authority, would soon burst out into a flame of universal persecution. Even the peaceable quakers struggle hard for pre-eminence, and evince in a very striking manner that the passions of mankind are much stronger than any principles of religion.

The colonies, therefore, separately considered, are internally weak; but it may be supposed, that by an union or coalition they would become strong and formidable: but an union seems almost impossible: one founded in dominion or power is morally so: for, were not England to interfere, the colonies themselves so well understand the policy of preserving a balance, that, I think, they would not be idle spectators, were any one of them to endeavour to subjugate its next neighbour. Indeed, it appears to me a very doubtful point, even supposing all the colonies of America to be united under one head, whether it would be possible to keep in due order and government so wide and extended an empire; the difficulties of communication, of intercourse, of correspondence, and all other circumstances considered.

A voluntary association or coalition, at least a permanent one, is almost as difficult to be supposed: for fire and water are not more heterogeneous than the different colonies
in

in North America. Nothing can exceed the jealousy and emulation which they possess in regard to each other. The inhabitants of Pennsylvania and New York have an inexhaustible source of animosity, in their jealousy for the trade of the Jerseys. Massachusetts Bay and Rhode Island are not less interested in that of Connecticut. The West Indies are a common subject of emulation to them all. Even the limits and boundaries of each colony are a constant source of litigation. In short, such is the difference of character, of manners, of religion, of interest, of the different colonies, that I think, if I am not wholly ignorant of the human mind, were they left to themselves, there would soon be a civil war, from one end of the continent to the other; while the Indians and negroes would, with better reason, impatiently watch the opportunity of exterminating them all together.

After all, however, supposing what I firmly believe will never take place, a permanent union or alliance of all the colonies, yet it could not be effectual, or productive of the event supposed; for such is the extent of coast settled by the American colonies, that it can never be defended but by a maritime power. America must first be mistress of the sea before she can be independent or mistress of herself. Suppose the colonies ever so populous; suppose them capable of maintaining 100,000 men constantly in arms, (a supposition in the highest degree extravagant), yet half a dozen frigates would, with ease, ravage and lay waste the whole country from end to end, without a possibility of their being able to prevent it; the country is so intersected by rivers, rivers of such magnitude as to render it impossible to build bridges over them, that all communication is in a manner cut off. An army under such circumstances could never act to any purpose or effect; its operations would be totally frustrated.

Further, a great part of the opulence and power of America depends upon her fisheries, and her commerce with the West Indies; she cannot subsist without them; but these would be intirely at the mercy of that power, which might have the sovereignty of the seas. I conclude therefore, that England, so long as she maintains her superiority in that respect, will also possess a superiority in America; but the moment she loses the empire of the one, she will be deprived of the sovereignty of the other: for were that empire to be held by France, Holland, or any other power, America, will, in all probability, be annexed to it.—New establishments formed in the interior parts of America, will not come under this predicament; I should therefore think it the best policy to enlarge the present colonies, but not to establish fresh ones; for to suppose interior colonies to be of use to the mother country, by being a check upon those already settled, is to suppose what is contrary to experience, and the nature of things, viz. that men removed beyond the reach of power will be subordinate to it.

October 20. I embarked again on board the Winchester, for England; and arrived in Plymouth Sound the 21st of November, after a rough and tempestuous voyage.



Drawn by A. de Humboldt.

C. Cooke, sc.

Peak of Popocatepetl, from the Forest of Chalapa.

TRAVELS TO GUAXACA*,

CAPITAL OF THE PROVINCE OF THE SAME NAME, IN THE KINGDOM
OF MEXICO.

BY M. NICOLAS JOSEPH THIERY DE MENONVILLE.

Avocat de Parlement, and Botanist to the King.

AFTER communicating to the minister of His Majesty at the head of the naval department the plan I had laid of naturalizing the nopal and cochineal insect in the French colonies, and receiving with his approbation of my design the means requisite for insuring its success, I made all diligence to put this plan in practice.

In this view I embarked for Port-au-Prince, and arrived there after a passage, equally tedious and fatiguing, of sixty-six days. Tired and disgusted with the sea I determined on enjoying ease for the space of a month or two on shore, a relaxation for which length of time appeared to me necessary towards my becoming acquainted with the mode to be adopted for penetrating into the interior of the Spanish territory bordering on that belonging to France, whence I expected to find a more ready conveyance to Vera Cruz, or to Honduras. Already had I formed schemes for proceeding to Santo Domingo, or, at any rate, for seeking at the Cape an opportunity of reaching Havannah by the vessels of the Asiento company, which pass between that place and the Cape in the traffic for slaves; but I could not disguise from myself that either of these two plans was attended with inconvenience.

In the first place, I might experience a tedious delay by waiting at the Cape till a vessel should sail for the Havannah. On the other hand, a journey to Santo Domingo would present many difficulties to an individual unacquainted either with the roads or the usages of the inhabitants, and naturally alarmed by the accounts he received of the little intercourse subsisting between the colonists of the two nations.

I was still wavering in opinion respecting the most prudent plan to adopt, when, by one of those fortunate events which, occasionally, in my travels, I was so happy to experience, I was relieved from all perplexity.

I learned that a merchant of Port-au-Prince was about to dispatch a brigantine to Havannah for the purpose of recovering the cargo of a vessel which had been wrecked in its vicinage.

Instantly, altogether mindless of the comforts I began to enjoy in a country which I had so ardently desired to see; disregarding the want even which I physically experienced of some repose, I resolved to avail myself of this opportunity. Repairing,

* The same with Oaxaca, pronounced 'Hooah'-haca.

therefore, to the intendant * of the colony, I obtained from him a passport in which I was designated botanist and physician. This latter title, to which I had just pretensions, possessing a diploma for the practice of physic, I conceived would enable me to travel with additional pleasantness, and render me less suspected than I might otherwise be in my incursion into New Spain. To conclude, I received, in lieu of six thousand livres promised me by the minister of the navy, no more than four thousand, a circumstance occasioned by the deficiency of money in the treasury.

However small this sum I refrained from all contention in the matter. I was indeed far more fearful of not undertaking the voyage than of the want of comforts to which I might be exposed; nay, after a nice computation of the amount I might need, I decided on carrying with me no more than two thousand livres; nor let my decision be charged with arising from a sordid parsimony, it was not for my individual benefit I thus made a retrenchment from the expence incident on an undertaking of such importance, and resolved on submitting to every sacrifice to ensure its completion: no; by thus acting I preserved a resource in case of the failure of my first attempts. Eventually I might meet with opposition to my views at the Havannah, and waste there much time and money; in which case I should have means left for trying other expedients, seeing that Porto Bello, Carthage, and St. Thomas de Honduras, were so many other roads I might attempt with prospect of success. Indeed, I computed on no other heavy expences than those which the different charges for passage would occasion, as I made up my mind beforehand to subsist on bread and water on my journey, supported by the pleasing reflection that should I meet with shipwreck I yet had two planks remaining, one in the hands of a trusty friend, and the other in the royal treasury.

My preparations were simply and speedily effected: a few clothes, some fruit and other refreshments, but especially a number of phials, flasks, cases, and boxes of all sizes, comprized the whole of my little cargo.

I embarked † on the 21st January 1777, on board the brigantine Dauphin, pierced for sixteen guns, and an excellent sailer. At ten P. M. we weighed anchor, and by eight the next morning, under favour of a breeze from the east, were a-breast of the Point of Gonave.

We steered on different tacks the whole of the 22d, in the channel of Gonave; by eight P. M. we were under Mount Louis, and attempted to double the point of Saint Mark; the wind blew from the N. E., and enabled us to effect this object in course of the night, which was remarkably fine: a meteor, resembling an arrow of fire, shot horizontally from east to west through the atmosphere, at an elevation of eight hundred toises ‡, its course marked by a broad train of light.

By morning on the 23d we had passed Point St. Mark, and distinguished the bay of Gonaves, and the table of St. Nicholas Mole; at noon we perceived from one point Gonave, Point Mayzi in the island of Cuba, and the crazy Cape (Cap a Fou) of St. Nicholas Mole. The shores of Cuba on this eastern side seemed to me of equal elevation with those of Santa Domingo.

The 24th, at ten in the morning, I observed two very light and broken clouds, resembling reeds, spreading through the space of a league, and crossing each other at obtuse angles, whence I conjectured that in the upper regions of air two different

* M. de Vaivne, now (at the publication of the book) intendant-general of the colonies.

† Notwithstanding this journal of the voyage from Santo Domingo presents little that is interesting, it has, for the benefit of seamen, been thought right to give it insertion.

‡ About 5000 feet.

currents existed, one of which, by obtaining predominance over the other, would necessarily cause the wind to change which at that period filled our sails. This day we coasted along the whole of the south-eastern shores of the island Cuba, in length at least thirty leagues. The lands in this part are so high that during almost the whole day the clouds floated below the summit of the mountains. The coast, very lofty towards the east, becomes insensibly less steep as you proceed south-west, until at length it sinks into a low shore. At Cape Cruz the country has a barren appearance; the mountains are steep and craggy, with many black rocks which project considerably, and there is no appearance either of cultivation or inhabitants: we were but four leagues off this coast, and distinguished at the time that of Jamaica. When the moon rose we noticed a repetition of the phenomenon of the crossing clouds.

On the 25th a moderate wind, assisted by the currents, carried us out of sight of the shores of Cuba. We caught a seine, two feet long, weighing six pounds, and beautifully marked with blackish vertical stripes. At eight P.M. the wind freshened to that degree we were obliged to lower our main top-gallants, take in our sweeps, and reef our top-sails: the sea ran high and the vessel pitched terribly; fortunately the moon, now at her full, afforded us a welcome light.

The wind during the 26th still continued violent, with a heavy sea, but this gradually became more calm as the wind, which was from the north-east, abated of its force. The wind continued on our quarter during the remainder of the day, so that we made nine knots an hour. At noon we discovered the island of Caymans, very low, almost covered by the sea, and apparently four leagues distant; we were now on the parallel of the Jardin de la Reyna, expecting on the morrow to see the Island de Pozos (of Wells). At eight we caught a caranque, a kind of perch.

The evening was serene, the wind abate from the west. At eight o'clock more than five hundred porpoises were seen frolicking before us in the water; of these one was taken five feet long; this, which was a female, I dissected, and described. At three P.M. on the 27th, we perceived El Jardin de la Reyna, low islands adjacent to that of Pines: we therefore had made a progress of sixty leagues from yesterday.

The whole night we had fair weather with a good breeze; but as all the currents off this coast run towards the shore, we were under necessity of steering south-west till day-break, with little sail out.

On the 28th we again steered north-west. By eight in the morning we made the Isle of Pines; this is a very long island: on it are three mountains, and a flat country covered with lofty trees, and seemingly adapted to cultivation. At three P.M. we distinguished the Eastern Cape, preceded by a chain of mountains, some of them separate from the others. This cape consists of low lands, which stretch into the sea the distance of six leagues. We made off here ten knots an hour, with a brisk gale from the N.N.E. In the evening we distinguished Cape Saint Antonio, but as there are breakers four leagues out at sea, we dared not venture to double it during the night; we therefore steered with little sail till eleven at night, making frequent tacks; but the man at the helm being overcome with sleep, by two A.M., we found ourselves steering for land a league only a-head; immediately we changed our tack, and backed sails; at five A.M. we resumed our course, and doubled the cape at a league distant. The low lands of this cape appear fertile, being covered with large and beautiful trees. At eleven o'clock we were near the shallows, on which we perceived the vessel whose cargo we came to demand. These shallows abound in little islets, and extend from seven to eight leagues out to sea, in a direction north and south. The water above them is of an emerald green, brilliant and pellucid when looked at in a glass; the colour

colour of the surrounding sea is a deep blue. The greatest depth of water in this bank does not exceed eight feet; so that not the smallest craft dare venture to cross it at right angles. When upon the skirts of this shallow we saw distinctly the bottom veined black and white, though there was fifteen fathoms water. We immediately veered about and steered N. W. and saw a French vessel imitate us. We were obliged all night long to steer upon different tacks, first N. W. and then S. W., the wind being adverse.

The 30th the wind blew still from the same point, with less or greater violence: whether the men at the helm had steered false during the night, or whether the ship had deflected from her course owing to the currents, we found ourselves three leagues to leeward of our reckoning; indeed, we again distinguished the vessel belonging to the owner of our ship near the shore, bearing S. E., and by it a boat leaving a cove in its vicinage.

The 31st we found ourselves fifteen leagues above the shoal; in fact, after tacking, by four P. M., we again had sight of Cape Saint Antonio, four leagues below us. In the evening a mizzling shower obscured objects from our view, but after the rain the wind veered to the north, when we steered eastward.

The 1st of February in the morning, the wind blowing from the south-east, we directed our course northward: during the whole night we ran along the coast, steering E. N. E., but out of sight of land. The winds were this day so adverse that spite of our reckoning we were much embarrassed to know where we were, but supposed ourselves near to land, and being unwilling to continue out of sight of it, we steered S. E. under easy sail throughout the night.

On the 2d at day-break, we made land three leagues distant, but were unconscious what part. By noon, however, we clearly distinguished a sorry hamlet, composed of a few straw-houses, which we ascertained to be Batcyouda. We now continued our course with all sails set, and under main and mizen top-gallants; nevertheless, we were unable to fetch the Havannah, though we had a highly picturesque prospect in our run of twelve leagues along the coast, of very lofty mountains, with sudden and pleasing intervals; the mountains, from the effect of shade, occasionally appearing perpendicular. At length night came on, when we found ourselves opposite a very large mountain. Here we backed sails. This whole coast, bounded by shoals, the whole distance from Cape Saint Antonio, appears to be very unhealthy.

We remained opposite this mountain the whole night, for fear of passing the Havannah, the precise site of which was unknown to us, in order not to near the land too close, taking care to keep constantly sounding. The wind, on this occasion, which was very violent, and the strength of the currents, gave us constant trouble, and much fatigued our crew.

On the 3d at dawn of day, we had deflected nearly ten leagues towards the E. S. E. and were opposite Marian's Table, a remarkable object, the form of which is described in the journal of a previous voyage. This table is the annunciator of the Havannah, which is situate three leagues beyond, and is readily distinguished by two hills, near to each other, in the shape of the female breast. We now unfurled all sails, and by nine in the morning distinguished the city.

As soon as within sight of it, we hoisted the French flag; an instant after we saw three flags raised as signals on a bastion of fort Moro. The view of the city, the Havannah, occasioned in me a singular emotion. The cities of our colonies resemble nothing better than an assemblage of fishermen's huts constructed in lines; but the fortresses of the Havannah, its numerous domes, its lofty steeples, the red tops of



Engraved by George Cooke.

*Harbour and City of the Havanas.
Taken from Jesus del Monte.*

its houses, its high and white buildings, all give it the appearance of an European town, and powerfully awakened in me the recollection of my darling country.

From the rampart we were directed, through a speaking-trumpet, to cast anchor; but the noise of the waves breaking against the rocks, the whistling of the wind, and the clamour of the crew, combined to prevent our comprehending exactly what was prescribed, and consequently our obedience of the prescription; nay, allowing that the injunctions had been fairly understood, as we could not conceive the necessity of them, they yet would have been disregarded; hence, partly from chance, partly from design, availing ourselves of the wind and tide, which carried us forward through the narrow strait almost in spite of exertion, we steered under full sail into the mouth of the port; thus, by one of those adventurous darings, which are common perhaps to Frenchmen alone, we cut short many ceremonies. It is indeed true, had the commander of the fort been a man more inclined to form and severity than the one who fortunately for us was in station, we should not have acted thus, without imminent risk of a few ungrateful salutes from twenty-four pounders.

The whole city assembled to enjoy the spectacle of a foreign ship entering the port without first casting anchor. The captain, who afterwards carried me to Vera Cruz, was among the number: he told me that our temerity occasioned him the utmost astonishment, and that ours was the only vessel which had ever made so bold an attempt without having cause for repentance.

Be this as it may, beyond the Moro fort we were met by the barge of the captain of the port, making towards us with great speed, and which completed our pilotage to an anchoring: by him we were conducted into the basin, and placed in front of the government-house, under the cannon of the captain of the port.

We had scarcely cast anchor before we were surrounded by a number of boats, in which were many idlers, and inquisitive individuals, who immediately boarded us; four officers of the customs came in the number, who were succeeded by a major of the navy, with four soldiers from the ship of the admiral of the port, a vessel of sixty-four guns; finally, the aide-major of the place, with a serjeant and four fusileers seconded these; our brigantine was crowded, and resembled a prize; the officers of the *contadores*, and those belonging to the navy and the land service, separately interrogated us, and received our declarations in writing of the motives of our voyage. For my part, I stated that I was a botanist, and came with intention of herborising. In reply to the consequent question, if we had not plants in our own country? I acknowledged that we were not deficient in that respect, but that those of the Havannah had the credit of possessing superior virtues. This, like all those representations which flatter Spanish vanity, attracted towards me a degree of consideration which was the more augmented, when by a viso of my passport, they noticed I was a regular physician: at this instant also a passenger secretly, and in confidence, imparted to some of the Spaniards that I was not only a physician, but one also of great eminence, who, however, wished to hide my abilities, fearful if they should become public, that I might be impelled to exercise them in the city: this communication much increased the respect shewn to me from several quarters.

While at anchor we had notice given that we could not be permitted to land, and two guards belonging to the *contador* were left on board until orders should be received from the governor, who was absent, and not expected to return before a week should pass; learning this, we resolved on addressing a memorial to him, but were void of expectation of any answer before the lapse of two days; we were consequently obliged to arm ourselves with patience.

One of our passengers having ventured to land, and proceeded so far as to pass for the captain of the ship, was detected in his imposture, and sent back under a guard of four musqueteers.

This act of imprudence was nigh being of serious injury to us: it caused us to be looked upon with suspicion, and we in consequence were very narrowly watched; for three successive nights I observed their boats, which relieved one the other every hour, and were constantly rowed round our ship, founding with grapplings to determine whether or no any thing had been cast overboard; in the day-time also nothing was allowed to leave the ship without being first subject to the nicest scrutiny.

So little congenial with my feelings was this mode of life, that it caused me to look upon our ship as a prison: the fancy had a powerful effect on me; and whether to this, whether to the thick and heavy air we breathed in the port, enclosed as it is by hills on every side, the complaint was to be ascribed, I felt a violent head-ach, and breathed with great difficulty; succeeded to these symptoms a fever, with prognostics of a serious disorder. I immediately had recourse to a strict diet, and pectoral and refreshing potations; and the very day wrote to M. Dorrira, the intendant of the port, to the Marquis de la Tour, the governor, and to Don Juan Davant, the King's lieutenant, exposing in my letters that my profession was one which could give no room for suspicion, and my state of health such as rendered confinement on board the ship not only very irksome, but even dangerous; I represented to them, moreover, the persuasion I felt, from the high opinion held of them by the public in general, that, under the circumstances I detailed, they would offer no objection to my request to be allowed to go on shore.

By eight o'clock in the morning next day I dispatched my letters, and as early as nine I received a most obliging and favorable answer from the intendant; but already the King's lieutenant, apprehensive for my health, the injury I sustained, which had been confirmed to him, sent the aide-major of the place on board, to bring me on shore, and offer me the house of one of his friends for my residence until I should recover.

I immediately left the ship, leaving my effects on board, fearful of the arrival of some counter-order, and afterwards paid a visit to the two gentlemen mentioned, for the purpose of returning them my thanks. In M. Dorrira, formerly consul at Bourdeaux, I noticed a highly prepossessing physiognomy, a serious, but at the same time mild deportment, accompanied by much affability, every appearance of a worthy character, and, finally, somewhat of French in his manners. He is a knight of the order of St. Charles; and, respecting his deserts, his integrity, and benevolence, there exists but one and that a highly flattering opinion. Don Juan Davant is one of those veteran and gallant military characters whom experience has rendered consummate in his duty, full of frankness, and possessed of that noble-mindedness which is almost ever the concomitant of real bravery: he is brigadier of the armies, and general inspector of the colony.

Both these gentlemen received me in the most handsome manner, begging my pardon even for their ignorance of my indisposition: they proffered their services to me in every respect, and to confirm definitively the order for my landing, which hitherto had been but provisional.

I held a long discourse with the intendant on subjects regarding natural history, commerce, and manufactures; on his part he related to me, with much gratification to himself, the fact of certain bees which had accidentally been transported to the Havannah from Florida, having multiplied to such a degree as to produce a very important branch of commerce and taxation, and this in the very limited space of six years.

For

For the King's lieutenant he made many enquiries respecting the population of our colony in St. Domingo; its actual strength in European soldiers, colonial troops, and militia: he frankly exposed to me those of the island of Cuba; and testified a full confidence in the perpetuation of the alliance subsisting between France and Spain.

He was so obliging to admit my request of being allowed to pay my respects to him, as also was the intendant: he even solicited me to make my visits frequent, an invitation of which I availed myself with much satisfaction during my stay.

On leaving them I took a lodging in an inn in the great square, where then the palace of government was building, and where already the office of accounts (*contaduría*) had been completed.

The land air, liberty, the grateful reception I experienced, these combined had a very salutary influence on my health, which was almost instantly evinced: three days were sufficient to effect my perfect restoration.

I then had opportunity of surveying the whole of the town and its environs, and began to augur favourably of my travels.

On the return of the governor I hastened to pay my respects to him. The intendant had already acquainted him with my landing: he received me with kindness, and granted me permission to herborise within the precincts of the city; but while the appeal of humanity to his finer feelings enacted a grant of wider extension, the imperious obligation of the law forbade the allowance; he even in express terms prohibited my advancing farther inland than ten leagues from the city. I returned him thanks in the most cordial manner for the licence I received, and not only, at my request, obtained leave to pay my respects to him; but, after taking coffee, was politely invited to dine with him the succeeding day. I found him surrounded by many persons of rank, as well military as others, to whom he introduced me, and especially Don Luis Huet, director-general of the engineers and of fortifications, whom he informed me was of French extraction. On my praising a very beautiful squirrel from Mexico, of which, as well as of a parrot, I begged his permission to take a likeness, he insisted on my accepting both the one and the other; but this excess of liberality I declined. Shortly after he made me withdraw into his cabinet to converse respecting France: his questions, as well as his easy and noble manners, stamped him distinctly a finished courtier: our conversation afterwards turned upon the arts. On this occasion he led me to an alley he had planted with trees, and which I had previously seen: I frankly imparted my disapprobation of the manner in which the ground was laid out; and after giving my reasons why, in such a burning climate, it ought rather to be covered with turf, he felt conviction. The stage formed the next subject of our discourse: he shewed me the design for the curtain of the opera-house he had built, and on the boards of which he had succeeded in causing the *Didone* of *Metastasio* to be represented: the design was a delicately flattering compliment paid the governor by the inhabitants, and one that, for an American city, might justly be considered of lively invention; but the execution of the draught by no means corresponded. *Phœbus* was represented in the chariot of day, leaving the palace of the hours, and illuminating with his beams the city of the *Havannah*, personified under the figure of a female, seated at the foot of a tree, near the margin of the sea, and fronting the *Moro* castle: she was crowned with towers and battlements, and rested her right hand on a shield displaying the arms of the city, while with the other she wantoned with genii. The fault in the execution chiefly consisted in the forced compliment intended for the marquis, and the consequent inappropriate representation of "the gorgeous palace of the sun." Here, the name of the governor being *de la Tour*, the sun was represented issuing from a very small tower, the gate of

which, disproportionately small, resembled more that of a dungeon than a porta for the passage of the radiant car of the sun, and its four impetuous couriers. I pointed out this defect to the governor, observing at the time that seemingly the painter was ignorant of the metamorphoses of Ovid, and the pompous description of the palace of the sun, in that work beginning *Regia solis erat*. He sought excuse for the painter, and recommended me to go to the opera; at length I left him, greatly pleased with my reception, and perfectly easy respecting my sojourn at Havannah.

The following day I visited the opera: the interior constructed on the plan of that at Naples, is truly handsome, and possesses an airiness and elegance peculiar to itself, arising from the circumstance of the boxes being separated from each other only by delicate balustrades very wide apart: through every part of the house sound is conveyed distinctly; and from every quarter there is a perfect view of the stage; add to these, the pit has the advantage, uncommon in France, of seats for the spectators. The opera was performed in a manner, in my opinion, superior to any I had ever seen before. *Aeneas* was represented by an Italian virtuoso, of exquisite voice, a most elegant figure, and noble countenance, and, with these prepossessions in his favor, who thoroughly comprehended his part, and acted in the first style: a Castilian was the Dido of the piece, her confidant a mulatress, and Yarbe was given by a Spaniard: these three actors, a circumstance certainly not very common, alike sang with taste and precision, and admirably played alike the different characters. This was the first opera at which I had been present, where in lieu of the repeated thumps of a clumsy and noisy truncheon, the time was led by a violin of extraordinary power and precision, played by the secretary of the governor, which inspired the whole of the performers with an accuracy, a truth of expression, that rendered the harmony complete: through the whole piece I found no room for the slightest blame, except on the introduction of a solo, intended no doubt to display the superior abilities of an exquisite violin, and which perfectly effected this end, but which at the same time interrupted the concatenation of the piece, and necessarily caused a diminution of interest in it among the audience.

However pleased with the opera, with their *comedia* I was far from satisfied; so many things in it occurred opposite to the taste and rules by which we are guided in France, that I saw nothing but ridiculous defects, of which these are some specimens: the name of God, of Jesus, of the Virgin, and of various saints occur in almost every phrase: the actors generally, but especially the women, never make their appearance without a rosary of beads; in every scene a duel is introduced; do two lovers meet, the scabbard must of consequence be emptied, and between two parentheses you read (*Saca la Spada*); all pieces, whether comic or tragic, are not only *comedias*, but *comedias famosas*, however wretched the piece, however despicable the author: to complete the picture, the titles of their pieces are ridiculously silly, as an instance, *La cabellera de Absalon*, The long hair of Absalom.

The *comedia* which succeeded the opera, was of a singular description: a single actor kills a dozen men, women, and children, without the slightest resistance on their parts, and ranges them in a row as he stabs them; the work complete, he calmly wipes his dagger on the upper leather of his shoe; this scene, so strange is the depravity of Spanish taste, was regarded as very fine. For my part, as it was carnival time, I imagined that this was an emblematic representation of the horrors attendant on drunkenness; but enquiring of one near me, I learnt I was mistaken: still, notwithstanding what I have observed, I have since discovered in their works of this kind abundance of wit, and many passages remarkable for their spirituality, delicacy, and gallant bearing. The author most admired at present is Calderon de la Barca.

The

The following day I again paid a visit to the governor, and spoke to him of what I had seen, when the account I rendered appeared to give him great satisfaction.

I presented to him, as I had previously to the intendant, a small packet of seeds for the kitchen garden, and flower-seeds: these he divided, giving part to Don Luis Huet, who dined with him that day; and, as I afterwards understood he was a planter, I begged his acceptance of another packet: he expressed with great civility the inclination he felt to form an acquaintance with me; in consequence, I invited him to my apartments, and a few days after he came in his carriage to take me to his country-house: here I found his lady, a Genoese of noble birth and extraordinary merit, one of his daughters, and an officer of the artillery. After breakfast, we went into the garden and sowed all the seeds which I had presented to him: our pastime was truly a festival, enlivened by gaiety, wit, well merited compliments, and the most pleasing conversation, in which due regard was maintained to decorum; in short, so agreeably sped the moments that we past through four hours of toil and scarcely thought them one. After our gardening was finished, a very delicate dinner was served up in the French style: cards were then introduced; and when we had taken a walk through the plantation, we returned to town.

This villa is situate under the cannon of Fort Principe, which was planned by Don Luis Huet himself; and the works of which he pointed out to me with as much confidence as if we had been for years acquainted: the soil is stony and dry; still manive, called by the Spaniards *yacca*, is cultivated here; and such is the industry of the proprietor of the ground, that its produce yields an annual revenue of three thousand piasters.

Don Luis Huet is a man in high esteem for ability in his profession, as well as for his partiality to literature. With the confidence of the court he enjoys the respect of the people; and his rank of colonel, places him in a condition to look forward to a still more distinguished appointment.

His house was that where I most frequently visited at the Havannah. Occasionally I went to pay my respects to the governor, the intendant, and the King's lieutenant: the rest of my time was employed in botanical excursions round the town, in studying the Spanish language, and pondering on the most material, the chief object of my travels.

Still I must confess time flew with leaden wings during my stay at the Havannah, a stay of more than six weeks.

The promise of the exterior of the city of the Havannah is belied by its internal appearance, which has little in it pleasing; its length is about a mile and a half (1240 toises); its breadth three quarters of a mile (600 toises); its site is on a rock on the sea side, and its form a semicircle, or rather semiellipsis, the greater diameter being along the shore; the houses are all of them built of stone, from one to three stories high; it contains four very extensive squares, which however are only half finished, possess little symmetry, and are covered every where with rubbish; the streets are regular and straight, but narrow, with a foot-pavement on each side, and an unpaved road in the midst, in which two carriages can scarcely pass abreast; as the city is on a dead level, the water frequently stagnates on the rock, in which deep ruts have on progress of time been formed by the wheels of carriages; a plan has been proposed for repairing the road, paving it, and giving it a slope; but the mode of paving projected, a specimen of which I saw in some of the streets near the government-house, is too singular to pass unmentioned. The material employed is blocks of iron wood, ten inches square, connected with other blocks longitudinally laid like a floor;

floor ; the solidity of this pavement is such, that notwithstanding the roads thus made have been travelled over for two years by a vast number of carriages, no trace on the wood of any wheel is seen, nor have the blocks in any part been disturbed from their original position. Should the plan be carried into effect, and the whole city be thus paved, it will display a very curious and special singularity. Towards the land side the Havannah is not strong, as it is defended merely by a simple curtain, flanked by bastions, and almost in every part without a ditch, owing to the immense labour requisite to excavate the rock ; it is however now secured from any attack on this side by the Fort del Principe, built eight hundred toises (nearly one mile) in advance, on an eminence which stretches to the town : on the side next the fort it is inaccessible. The port, one of the most beautiful and spacious in the world, is a basin nearly circular, which receives several small rivers ; it runs a league in depth from the neck to the extremity ; the entrance is protected on the town side by a fort, opposite to the wall and sides of three bastions, which, placed one above the other in tiers, command the anchorage in the road ; on each of the flanks of these bastions there are commonly mounted eighteen twenty-four pounders : on the side fronting the country, a wall built on a rock, till the arrival of the English before it, considered impregnable, defends the entrance of the port ; the Cavana, another fortress newly constructed above the wall, commands both the port and city, and its fire crosses that of Fort del Principe ; finally, two other small forts at the bottom of the port, two tiers of guns on low batteries beneath the wall, the Cavana along the shore, and a battery level with the water, render this city extremely formidable : it is supposed that its different defences mount altogether eight hundred pieces of cannon, chiefly twenty-four pounders. Never will it be attempted on the part of any nation to force the gut, for such an attempt would be madness : two English frigates which ventured the hazardous enterprise during the siege of the place, were in consequence sunk : nothing more beautiful than the appearance of the forts can possibly be imagined, their construction being on the most profusely expensive scale. The only recommendation of the houses of the town is a certain air of grandeur, large gates and courts, wide windows projecting two feet over the street, supported on pilasters, heavy balconies of wood covered with tiles on the upper stories, palisades of wood coarsely fastened, and of enormous size, all these give somewhat heavy, sombre, and repulsive to the look of the houses ; internally they have commonly a vast court surrounded by Gothic arcades, large, and in the Moorish style ; the gallery formed by these, communicates with large but ill disposed apartments badly furnished the doors and windows of them resembling those of a fort or dungeon, as much by the thickness of the portals as by their Gothic structure. In the vestibule, or in the chief apartment of the house, it is common to have the arms of the family blazoned in manner of trophies, an usage derived from the time of chivalry, which if occasionally it be but vain parade yet again oftentimes serves to excite true bravery and a spirit capable of any daring enterprise. The houses of the lower orders have rarely any flat ceilings, and all, even those belonging to people in easy circumstances, instead of being favoured with wood, or squares of tile or stone, have merely an earthen floor, which by its preserving humidity, I found of injurious effects to health. With the wealthy, the furniture of the rooms is of wood partly gilt, curtains of crimson damask with gold fringe, and some japanned works, paintings, and glass lustres. The beds are very simple, and no pier-glasses or other mirrors are seen, no inlaid work of wood for floors, and neither carpets or tapestry, in short nothing corresponding with the sumptuousness or elegance of French apartments. The Spaniard is as modest in his dwelling as he is sober in his mode of living ; the English have taught him the method

method of cooking certain dishes, and the use of different pieces of furniture; of the talents of the disciple, a judgment may readily be formed by reflection on who were his masters.

The men wear coats of the French fashion, but the cut of the body is so short, that the pockets are nearly under the arm; above this coat, generally of cotton or taffety, a cloak is worn of buradilli or camblet; those who seek to render themselves conspicuous, wear a blue or scarlet cloak, embroidered or trimmed with gold; this is a sumptuousness, however, not within the compass of every one, as such a cloak costs five hundred piasters; still those of the height of fashion decline wearing it, preferring the French dress. The hair, which is rarely seen powdered or frizzled, is enveloped in a net, and covered with a broad brimmed hat. Such is the dress of the men.

The women seldom wear gowns, but almost always are dressed in a corset and petticoat, with an apron of gauze or muslin, and a few ribbands; they wear no powder, nor is their hair frizzled, but braided and turned up, or worn in chignon under their cap; to this is added, attached above the hair, a sprig of rue or absynthem. Their ornaments consist of crosses, rings, gold necklaces, and large bracelets of massive gold, that weigh a quarter of a pound. Happy she who wears a bracelet on her left wrist! but how much happier if one on each! She amuses herself constantly in fastening and detaching them, as well as in pulling off and drawing on her glove, and all for the purpose of attracting attention to her beautiful and well turned arm. French women paint: for the Spanish ladies they have a black patch of a round or oval form at each temple; these at night are removed, and white patches are substituted (which pretty well resemble a plaister); in the morning, they wear instead the leaf of an orange tree.

Few handsome women, and still fewer who had pretensions to elegance, were seen by me at the Havannah; they never go abroad, but in the morning to mass, and the evening for a ride, hence they are not to be seen either in the streets, shops, or any public room. Constantly shut up in their own apartments, the pleasure of enjoying an airing out of the city is the only enticement can induce them to leave them. This indeed is their favourite pleasure, nor is it costly; four hundred piasters for a coachman, a hundred and fifty for a mule, five hundred for a chaise, in all about a thousand piasters pay every expence; hence the city swarms with carriages. Even the meanest clerk drives his chaise; and it is as common to present one to a mistress, as in France a box of sweetmeats.

It must further be observed, that in no part of the world is money so plentiful as at the Havannah. It circulates in taligas, resembling those bags of a hundred pistoles in course at Paris; and the counters of the officers of revenue are covered with piles of reals of plate, which they exchange for hard dollars with singular dispatch.

The markets are plentifully supplied with every kind of provision, but especially vegetables, which are quite as good as in France; fish and turtle are extremely cheap; beef sells at a real the four pounds; excellent mountain and tent wine at two rials the bottle; indeed, no town in America is better furnished with means of good living, or at a more reasonable rate. This advantage is to be attributed in great measure to the division of the real into quartillos of tin, for nothing is more favorable to œconomy than small coin.

The trade of Havannah and Mexico is in the hands of the Catalans, whose commonly active, laborious, enterprising and persevering disposition, have acquired for many of them considerable fortunes; they are in consequence an object of envy to Spaniards at

large, who seek to disguise this feeling under the veil of contempt, an assumed sentiment as little commendable as that which is the real one. For one Castilian engaged in trade there are thirty Catalans. Intoxicated with success, however, they prayed for exclusive privileges, a kind of monopoly but too common in Spain. They had proposed, as speculators, to supply the colony altogether with wines from Malaga and Alicant at a real the bottle, whereas the actual price is two reals; but their petition was rejected; as it was accompanied by a request of being the only ones allowed to introduce and sell the commodity.

The articles of trade are iron, linen, iron ware, silks, clocks and watches, wines and spices.

At the Havannah, as in Mexico, little other is seen than Brittany linen, the coarsest of which sells at a dollar the vara*. The iron ware is all of it imported from Germany; the clocks and watches from England; the small quantity of Indianas and Persianas consumed, which are not from the fabrics of Mexico, are derived from France. The Genoese, for whom the Spaniards evince great partiality, furnish them with all silk articles for veils, cassocks, black hoods worn by the women on going to church, mantles for priests, &c. Their iron is partly drawn from Sweden, partly from old Spain. Spain likewise sends hither oil, wine, and paper of detestable quality. What is highly singular, neither at Havannah nor at Vera Cruz can blue paper be procured: I wanted some quires to dry my herbs between, but was only able to procure a few sheets in which certain goods had been enveloped, and which, notwithstanding, I was charged for at a very extravagant rate.

Neither at the Havannah nor in any part of America is such a thing known as a public promenade planted with trees. M. le Marquis de la Tour attempted to form one round the ramparts, but it did not succeed, and nothing but the walk remains unsheltered; another, attempted at an earlier period, and planted with orange trees, is likewise gone to ruin.

The Havannah contains about twenty-five thousand inhabitants. The whole population of the island, including negroes and mulattoes, does not exceed a hundred and sixty-six thousand souls, according to the statement in possession of the governor which I saw; and from a French engineer from Vera Cruz, who had lived a length of time at Mexico, I learnt that all this vast empire of Spain, in America, contains no more than a million inhabitants.

At the time I was there the Havannah contained no more than three thousand regular troops, there was, however, in addition to these, a body of militia, excellently disciplined, consisting of sixteen hundred men.

Not a single church did I observe worthy an account of its architecture to be noticed; all of them are long buildings, dark as dungeons, ornamented on the right and left with innumerable chapels, with frontispieces composed of a medley of orders of architecture, wretchedly encumbered with useless trappings, and still more wretchedly disfigured by the utter absence of all proportion; though profusely covered with gildings, these were at the same time classed, if the term be applicable, in the most revolting and superstitious confusion: not one of these chapels but will have cost upwards of ten thousand piasters, and in every church are at least thirty or forty. At this time the church of the Jesuits, designed for a cathedral, is nearly complete; on surveying it you would imagine before you a structure of the ninth century.

Each of the thirty churches contained within the city, has seven or eight brotherhoods, who are constantly making processions out of number, but these most especially at the

* A measure somewhat less than a yard English.

period of carnival. At this time, (the ceremonies on which occasion I had before noticed in France and St. Domingo,) at this time, I say, there could not have been here less than three thousand processions: nothing could be seen but processions, and no other talk or noise was heard but of which these were the cause or theme. They were everlasting, from morning to night, general processions, and processions of individuals, of parishes, communities, and of every brotherhood: the members of these patrolled the streets with lanterns, deafening the ear with the discordant notes of hoarse bassoons, and twanging guitars, and driving the god of sleep from every eyelid as long as they lasted; finally, were processions of every father of a family, followed by his wife, his children, and domestics, who, chaplet in hand, repaired to their particular chapels.

Every house has its chapel, at which each month a particular festival is celebrated.

The festival of the dedication of the different churches, and still more particularly that of their several patrons, are grand celebrations: the evening before by nine o'clock the steeple is illuminated, and a grand concert is given, to which it is usual to listen from the roofs of the neighbouring houses. The succeeding day this same steeple exhibits a variety of streamers of different colours; the body of the church is filled with tapers to such extreme as not badly to represent a fiery furnace, through the aisles of which bad music is badly heard, but in which also splendid offerings are made.

The bishopric of the Havannah reputedly produces forty thousand piasters. Don Fulano Echavaria, who is the present incumbent, is apparently high in favor at court. He caused an order to be published which bore for title "Eneuentra il execrable crimen de los contrabandistas," against the execrable crime of smuggling. I could not refrain asking a priest of my acquaintance, who happened to be his secretary, if such an offence was entitled execrable what epithet was in reserve for the crime of treason? but my question remained unsolved.

Nothing can be conceived more rigid than the ordinances against, nor more harsh than the punishments for smuggling, since the very first delinquency detected renders both body and goods of the culprit liable to confiscation. Notwithstanding this, nothing is more common than contraband traffic: all alike pursue it: burghers, priests and soldiers. Does a vessel arrive? it instantly swarms with faces utterly unknown, and whose only business is to inform you, that such and such articles are prohibited, and officiously and out of pure good will to render you the service of conveying surreptitiously on shore your boxes of gold lace or other unlicensed articles of import; nor presume to shew or entertain the least mistrust: an infidelity in instances of this kind is a matter unheard of, so readily are all in league to evade a law so barbarous and unjust.

False coining is punished by the stake.

In short, every thing is either farmed or otherwise monopolised, which multiplies not only the temptation but the necessity of smuggling.

The baker of Havannah is obliged to buy a license to prosecute his trade, for which he pays a hundred piasters to government.

Paper, gunpowder, wine, tobacco, all are farmed throughout the whole of Mexico, and what is still more singular, still more odious, the tobacco and cacao grown in one province are prohibited articles in another. On the miserable, and, verily, most miserable, shores of Yucatan, I have seen the trade for boats, cables, cordage, and even hammocks exclusively engrossed by farmers under the government.

Thus it is, by erroneous calculations, that the Spanish government annihilates the commerce, the population, and comforts of its subjects; hence flow discouragement, in-
activity

activity and wretchedness, the infallible precursors of weakness, uncleanness, disorders, and death.

To these causes, no doubt can be entertained, is the endemial leprosy of Carthagena, mentioned by the Abbé Raynal, to be ascribed. Already has it spread to the Havannah, where a leper-hospital has been constructed for the reception of a hundred and fifty patients: in this very hospital are at the same time admitted such as are afflicted with venereal complaints. I made a visit to it in company with a physician of the country, but confess the sight filled me with horror, and that I had need of great exertion, and the preservative of a flask of strong vinegar, with which I took care to be provided, to qualify me to support the disgust by which my senses were assailed. The management of the hospital is but indifferent, for, though surrounded with walls, the doors are constantly kept open in the day time, and the sick are perpetually going in and out, without any restriction even from their traversing the whole of the city.

Though France can boast of but little commerce with the Havannah, it is much to be apprehended that this frightful malady may eventually be introduced into her colonies; to effect this but little intercourse is required, and communication to a certain extent is continuous. I could not look on a negroes whom I saw at Port au Prince, and who was completely covered with an elephantiasis, without shuddering at once with pity and horror: I saw the poor wretch, abandoned by her owners, begging through the streets and markets, where thousands of slaves were liable to receive the infection; and cannot refrain from observing, that much greater attention than is, ought to be paid to the prevention of those terrible consequences, to which this and similar occurrences might lead.

For want of wells, all the houses at the Havannah have cisterns. Two of the squares are adorned with fountains which stream forth water conducted by subterranean channels from a small river, the course of which is defended by the Fort del Principe, so that an enemy would be unable to cut off this supply from the city, in case of a siege, without first taking the citadel.

The air of the city is generally pure and healthy; the winds from the north, which prevail throughout half the year on the coast, cool the atmosphere to that degree that I always felt cold at night, and even in the morning, until by ten the sun's warmth dispersed it, raising the thermometer of Bourbon, to five or six degrees above the freezing point.

Already had six months elapsed since my arrival at the Havannah, during which I had incessantly been tormented with the desire of completing my enterprize: the time appeared to me in consequence intolerably tedious. I delayed thus long the prosecution of my plan merely to prevent my becoming suspected by a people naturally jealous and mistrustful, and whose eyes were constantly upon me: the better to lull suspicion respecting the real object of my researches, I constantly affected the heedlessness of a man intent on harborizing; but, at length, weary of the state of incertitude in which I lived, and yielding to the impulse which directed me to Vera Cruz, I began to think seriously of the means of reaching that city.

I thought it prudent still to use stratagem, and pretending to be actuated by that volatility and inconstancy of disposition, oftentimes with so little propriety ascribed to Frenchmen, and which occasionally is so favourable a cover to deep designs, I feigned to be overcome with ennui from my long stay at the Havannah, and the too narrow limits prescribed me as a botanist. I readily obtained belief, and met with commiseration; and by this trick partly, and partly by a fortunate occurrence of which I availed myself, I succeeded to the height of my wishes.

One day Don Manuel Feliz Ruick, the factor of the Asiento company, at whose house I had twice before been to obtain change for some joes *, enquired if the report he had heard was true of my being a pupil of Mr. Jussieu. On my satisfying him in the affirmative, he informed me that he himself had been secretary to Don Antonio Uloa, one of the literary characters dispatched by the King of Spain, in company with our academicians to Peru; that he had been very intimate with him; and on account of his intelligence and social virtues, that he had a more tender regard for him than any man alive. This subject of our conversation gave room for my observing, that I also should have been delighted with an opportunity of visiting Peru; but that, as my time was limited, and my means deficient for this purpose, I should feel much pleasure if any chance should enable me to traverse Mexico. Don Ruick instantly tendered me his service towards procuring me the facility of making this journey; he was already highly interested in my favor from my intimacy with Mr. Jussieu, promised me letters for Don Antonio Uloa, at that time general of the fleet at Vera Cruz, and generously proffered to become my surety in a bond of a hundred thousand dollars.

This, certainly, was a very lucky incident, and a handsome progress towards the effectuation of my designs; but this was not all; I yet feared lest the governor should object to grant me a passport, notwithstanding he had promised he would upon the inclination I expressed of seeing a country, in the praise of which he was no less lavish than the rest of his countrymen, prone to think well of their possessions. I perhaps mistrusted him unjustly, but certainly not without some grounds for my fear; as, amid the caresses and kindness I experienced from Don Lues Huit and his lady, I was able to trace a fund of curiosity, and was subject to questions, natural enough in themselves, and especially so coming from a woman.

I communicated my doubts to Don Ruick, which he easily dispersed, and even promised to speak on the subject the succeeding day, to the Marquis de la Tour.

I now made preparation for my departure, without communicating my intentions to any one breathing, not even my host: the packet for Vera Cruz was to sail in three days time, and short as the notice, I resolved not to miss the opportunity before me.

The next day was Sunday, a day on which the governor holds a levee at his palace. The superior officers, on this occasion, the municipal officers of police and finance, repair to the palace between the hours of ten and eleven. The governor grants them audience, and receives their respects in the government hall: it may safely be said that if this custom establishes, and reminds the courtiers of subordination, it lessens the humiliation which the high spirited man, lost in the crowd, must feel at being obliged to render homage to individuals undeserving either of affection or esteem; for this levee also furnishes an occasion for soliciting and obtaining trifling favours, and for expediting affairs of little moment which would only tend to perplex or clog those particular audiences held for matters of graver import.

This was the first time of my being present at a similar audience, and the object of my attending it was to solicit my passport; but finding here Don Manuel Ruick, who repeated the promise he had made me of speaking himself on the subject to the Marquis de la Tour, I judged it expedient to leave the management of my solicitation with him, and withdrew, well satisfied with the prospects before me.

In the afternoon the militia cavalry was to be reviewed: I saw the Marquis in company with Don Luis Huet, and both bent to me with great civility; this appeared to me of

* A Portuguese coin value 35s. 2d. the price of English standard gold being 37s. 10½d. the ounce troy.

TRANS.

good omen, and I hastened to the government house. As I ascended the steps I met Don Luis who was leaving the hall, and who enquired if I repaired thither in view of asking any favor; I answered in the affirmative, informing him of as much as was proper of my design: upon this he proffered to accompany me to second my request, at the same time adding, he **thought** his interposition would not be needed: in consequence I thanked him for his politeness, and took my leave of him.

I waited but little ere the governor approached towards me with that benignant look his features commonly wore, and enquired what my wishes? I took the liberty of reminding him of the promise he had made of granting me a passport for Mexico; and stated I had come for the purpose of obtaining it. He gave it me at the instant, and without making it dear, as is but too common with his equals, by thousands of difficulties and delays; he merely told me he was fearful I might not eventually meet with that gracious reception from the viceroy of Mexico which he himself desired; concluding with wishing me success on my voyage. I thanked him for his kindness, and after paying my respects withdrew. This excellent man remained a long time in the vestibule to see me depart; and when on the last stair of the flight of steps I turned again to make my last salutation, I had the satisfaction to see him return it, testifying by his features and gesture the interest he took in my welfare. Men in place! how easy is it for you to engender love and veneration! whence can you ever choose to be distant, harsh, and rude?

In possession of my passport the liveliness of my joy was proportioned to the inquietude I had felt respecting the possibility of my procuring it; folded in my pocket I kept it as the dearest treasure, and woe to him should dare to ravish it from my possession! That it might be perfectly secure I flew to place it in safety; I hastened light as air to Don Ruick, who gave me his letters for Don Antonio Uloa; I embraced him while I assured him of my devotion and gratitude, and returned to my host to sup with a feeling of contentment which defies expression. Then only did I speak of my departure: though apparently grieved to lose me, as he reckoned upon my longer stay, mine host yet condescended to share the joy I expressed, and gave me letters for a merchant at Vera Cruz, and a settler at Theulchistan, on the road to Mexico.

I had now to treat for my passage: the master of the packet would take no less than a hundred hard dollars; the demand was exorbitant, but it was vain to reason, his avarice was inflexible: to all my arguments he opposed a truly Spanish phlegm and gravity, and coolly pocketed my money without once taking his cigar from his mouth. We were to have sailed the following day, but his departure was procrastinated three days longer, during which I made my farewell visits.

At length, on the 11th March 1777, we went on board, and weighed anchor at eight in the morning, saluting the city and the seven citadels with one gun.

What then, and at all times seemed to me incredible, was the small number of vessels in this famous port; during the six weeks of my stay I noticed no more than fifteen of from eighty to two hundred tons, including the packet from Vera Cruz, and in this last port, though I remained there afterwards ten weeks, I saw no greater number.

With what pleasure, as I left the port, did I contemplate those tiers of batteries, the citadels and forts which line the approaches to the Havannah, and the innumerable mouths of thundering cannon with which they are furnished! On my arrival I fancied them all directed against me, all pointed towards the prevention of my scheme of obtaining the cochineal insect: how much then must I not have felt elated! how grateful the self-applause I enjoyed, at having had the temerity of braving, and the great good fortune



Drawn by A. de Hamel.

Engraved by George Cooke.

Volcanoes of Puebla, as seen from the City of Mexico.

London, Published by Longman, Hurst, Ross, Byrne & Brown, Paternoster Row, Aug^r. 1841.

fortune of avoiding their terribly menacing rows! No; when the English captured this important place, they experienced no higher satisfaction at their success. Like them, I thought I held the key of Mexico: all future obstacles vanished from my sight, and already I possessed in idea the precious treasure which I sought.

The vessel on board of which I sailed was a brig of sixty feet keel, called the Vera Cruz Packet: it carried four carronades, two cannon, and a crew of nine persons: we had scarcely left the fort before a twelve-oared cutter, rowing towards us, hailed us on the part of the governor: what was my consternation! I instantly imagined that, repenting of having suffered my departure, the marquis had sent orders for my being relanded: this apprehension threw a deadly pale over my countenance, and occasioned such a trembling in my frame that, had I been observed, I should necessarily have been taken for a criminal. *Dei, deaque! quam male est extra legem viventibus, quidquid meruerunt semper expectant.* I was however quit from the panic I experienced: the mission of the cutter was merely to deliver letters on the part of the governor for Vera Cruz.

The sky was serene, a favouring wind rippled the easy sea, and the vessel was an excellent sailer: we kept in with the coast, steering as close to the west as possible, and at day-fall were already eighteen leagues from the city.

The wind increased during the night, and veered from S. W. to E. S. E.: we lost sight of land, and by noon on the 12th March were parallel with the shoals which bound Cape Sant Antonio. From the period of our departure we had constantly run six knots an hour with all sails set. In the afternoon the sea which had been very rough became more calm, and its surface was entirely covered by those moluscæ, called by sailors, (galeres); we saw several large trunks of trees which had floated down the Mississippi into the Gulf of Mexico, and which by the currents of the Bahama streights had been sped hither. I had before remarked others similar on the coast of Cuba, where they had been cast by a tremendous storm from the north: among these was one which exceeded a hundred and twenty feet in length, and of a diameter so considerable that, although on shore, I was unable to ascend it otherwise than by the branchy end. I conjectured from the nature of the knots on the tree that it belonged to the family of pines of the larch kind: from time immemorial the whole coast of Vera Cruz has been covered with them; and some are so completely buried in the sand, which increases in this port daily, that nothing now but the roots are seen. These trees are dangerous, no doubt, to approach in the night, but they serve as resting places to an infinite number of aquatic fowl, who find rich pasture in the sea, insects which engender on them, and the shell fish, which, as to rocks, fasten on the trunks, roots, and branches.

At six in the evening we had a dead calm. The whole night long we sailed with the wind slack but abaft. At five in the morning of the 13th we were again becalmed, but a wind arose with the sun on that as well as on the succeeding day; though, throughout both, notwithstanding we had the wind abaft, and the line shewed a run of ten knots an hour, we did not advance an inch: the sea, through which we cut at a great rate, foamed and broke hard against the ribs of our ship, like where the wheel of a mill is violently acted upon by a rapid torrent: the vessel bore on the same tack, riding very heavily, but with great celerity. We still on the 14th continued opposite to the same mountains of Cuba we had seen the night of our departure: in short, we actually had no change of position, a consequence when the violence of the current is adverse, and equivalent to the impetus of the wind. Nothing can be conceived more vexatious and tiresome than such a predicament; fortunately we had good hammocks,

and an excellent table: the strictest discipline and most profound silence reigned on board, and the captain, a prime sailor, was at the same time, though rather taciturn, extremely obliging. He assured us that for eleven years that he had frequented these seas, he never before experienced currents so powerful: he added, moreover, that the worst months for navigating the gulph are September, October, November, and December, on account of the prevalence of north winds; that in June calms are frequent; and that the months of June, July, and August, the rainy season, are subject to storms and hurricanes: from these observations I determined on returning, if possible, in January, but at any rate, and at furthest, by August or September.

At length, on the 15th in the morning, after having doubled the shoals during the night, we lost sight of land, and by reckoning had also doubled Cape Sant Antonio. At noon the wind had much encreased: we furled our stay sails and top gallants, and directed our course south-west.

From this time we constantly had the wind either abaft or on the beam, that is to say, east or south-east. On this day I saw Venus, the sun being at that time five degrees above the horizon. The 16th we were on the bank of Yucatan, in the Gulf of Mexico: on sounding we met with fine white sand mixed with shells, in twenty-three fathoms water: in the gulf the winds were east and south-east: from ten in the morning they insensibly turned to the westward, and after four P. M. revolved from west to east. Our line shewed the run six knots; and as we were only a hundred leagues from Vera Cruz, we hoped, if the wind should continue favourable, to reach it in four days. In the three days preceding we had seen a number of fish of the phocas tribe, and three or four hundred porpoises and small phocas sported and rolled about our ship, occasionally preceding it, and seemingly endeavouring the one to outstrip the other in velocity of swimming, now springing to the height of a fathom above the surface, and falling with a dashing noise, now advancing in pairs by the side of the ship, and apparently caressing each other, while at a distance their dams were seen, half as large again as their offspring, seemingly pointing out to them the course they ought to take. How far more pleasing sure the innocent enjoyment of such a scene than amusing oneself, as is customary, in pursuing, harpooning, and destroying these interesting animals! Fortunately for them our sailors had not leisure for such an amusement; and, separately from this circumstance, they lived too well to seek for better fare.

At four P. M. we again heaved the lead, and found thirty fathoms on a bottom of remarkably white sand.

The 17th, with similar ground, we had but twenty fathoms. From midnight till noon the wind had slacked, and we made only three knots, but on its veering to the north after mid-day it freshened so as to double our speed. The sky, covered with clouds at sun-rise, became again serene. We distinguished certain white birds, the size of a duck, with the end of their wings fringed with black: I likewise remarked a pelican, or frigate-bird, with a complete tail: all this announced to us the neighbourhood of land.

During the whole night of the 18th the wind blew strong: on sounding, the lead shewed first twenty-two, then twenty fathoms, with fine blue sand mingled with shells. We saw a vast number of porpoises at ten A. M. At noon the wind, which had been south, changed to south-west, and sunk into a calm: we availed ourselves of this to throw out lines to the bottom of the sea: these lines have each a hook attached to them with about an ounce of bacon, and are precipitated by means of two shot of a pound weight: this little exercise is diverting and profitable: in an hour's time we had caught two hundred weight of excellent fish: they were of three species, but all of the

perch kind: one denominated the negro, another a beautiful red sardine, the third with long pectoral fins.

At four a wind sprung up from the north, and blew from that quarter the whole night through, but afterwards reverted to the south-east: we made six knots an hour.

On the 19th we had forty-five fathoms water; from this we conjectured we were but eighty leagues from Vera Cruz, and that in three days time we might anchor before the town: this was the *ne plus ultra* of our wishes, but they were not so soon to be gratified.

In the evening we were becalmed: the sun on setting was dimmed by a vapour which, though it did not eclipse its light, diminished the vivacity of its rays: the sky, as well as the horizon, wore a gloom prognosticating somewhat sad and mournful: from seven till eleven the wind was north, and our course four knots: by two in the morning it increased to a gale: the sea ran frightfully high: we took in all sails, chained up the rudder, and left the ship to the mercy of the waves: a thousand times did they deluge the deck of our fragile vessel, which now rode on their backs, and now was enveloped by their overtopping spray.

The whole of the 20th the weather was horrid: never in Europe had I experienced the like. In these seas the winds from the north blow with violence for the space of four-and-twenty hours, after which they abate for thirty more, and cease for three days: they are piercingly cold and very frequent, so much so, that it is rare a fortnight passes in these regions during the winter without their being felt.

On the 21st the wind was less violent, and veered to the north-west, the morning misty: at noon it blew north-east, and for three hours it continued to rain: in the space of eight-and-forty hours we had not advanced twenty leagues, and we yet had fifty to pass, which we no longer expected to make in less than three more days.

The night of the 22d was rather a bad one: the wind was incessantly changing from south-west to south-east, and, as well as the mist with which we were eight different times enveloped, was every now and then succeeded by a dead calm: the rolling of the ship throughout the day was dreadfully fatiguing. In the morning a poor little bird of the size of a wren, but the colour of a green finch, came and roosted on the vessel: it endeavoured, skimming on the surface of the sea, to fly against the wind, but, constantly overpowered, returned to us again: others made their appearance, one of which was taken, the residue were driven out to sea by the violence of the hurricane. At one o'clock a butterfly paid us a visit, and was greeted as an infallible index of our nearing the land, a trust to which we gave ourselves up with pleasing reliance.

At night the unchequered sky was spread before us in all its magnificence: a dead calm prevailed, and the rolling of the vessel affected us exceedingly.

At length, on the 23d, we had sight of land: the captain at first had doubts, but these were soon dismissed: it bore south, and we found ourselves twenty leagues to leeward of Old Vera Cruz. We should by this time have been at the mouth of the port had my advice been taken, which was, on the 22d, to sail direct before the wind from the north: what induced me to give this counsel to the captain was a knowledge that in the Gulf of Mexico the north wind is but of three days duration; now as that was then the third, and the regular winds blow from the south-east, by steering from north to south at the risk of over-reaching New Vera Cruz on the 23d, the south wind, which prevails throughout the whole day, would have been favourable to our increasing our latitude, and recovering the lost way; instead of which, by being now to

leeward of the port, we had to beat up against the wind, and could scarcely hope to reach the port even on the succeeding day.

We steered within seven points of the wind, and made but slender progress. The lands of the coast we saw are more lofty than those of Santo Domingo: they ran west and north: at night we were but ten leagues off, and the sight of them diffused joy and satisfaction through every breast, but, the wind continuing as little favourable as ever, when within two leagues of land we tacked, and ran all night through to sea. The shore we by this means avoided is that of Las Terras Liones, which stretches to the mountains of Alvarado, from the midst of which, of a sugar-loaf form, rises the volcano Orizaba, which we distinguished the day before, though distant five-and-forty leagues, the country had a beautiful appearance, but, for the space of forty-five leagues, that is to say, as far as to Old Vera Cruz, it is, notwithstanding, unpeopled.

The 24th, in the morning, we had made about a league of progress: by noon the wind again came to the east, nearly large, and inspirited us with expectation of entering Vera Cruz on the succeeding day: at four it freshened from the north-east: at six abated: by eight we distinguished the reefs in the vicinage of the port: we fired a gun, and immediately after distinguished a light, which we conjectured to be from the castle of Saint John de Uloa, and we answered it by a light at our main-top-gallant, and fired a second gun: we then perceived a second light, presumed from the ship of the admiral of the port. I thought it advisable another gun should be fired, but was fearful of communicating my opinion to the captain, mindful how little attention had been paid to my former observation: no doubt had a third gun been fired the major of the fleet, who in a galley with thirty men on board had left the port in search of us, would not have missed his way.

We however made some way, but with little sail set, and constantly foundering: the fathoms indicate the passage into the port, for the reefs by which it is bounded render it very difficult of access.

At ten at night we were boarded by two boats, each with thirty men on board, furnished with cables for mooring us, and with anchors and grapplings in case of need: they enquired after the major of the port, whom they expected to find with us, as he had sailed before them.

They towed us along by dint of oars, favoured by a light wind: we threaded the tortuous labyrinth of the entrance, through which at length, by midnight, we reached the port.

We anchored under the cannon of the ship belonging to the captain of the port; itself at anchor a half cable's length from the castle. All night long it rained; and we were exceedingly incommoded by the hot and moist atmosphere of this climate, as also by the vapours from land.

At five in the morning I was preparing to land, when the major of the fleet joined us: this gentleman was Don Pedro de Verthuizen, with whom it will be seen I afterwards was on terms of closest intimacy: at this instant I paid but little attention to him; for, judging after the French manner, I esteemed him from the old coat he wore, covered by a rusty furtout, to be no better than a serjeant of marines: he requested my passport, which I gave him, and he kept, and I obtained permission to go on shore.

Uneasy in extreme respecting the reception I should meet with here, I put my baggage into the boat, and traversed the port: on landing at a jetty about ten fathoms broad, and a hundred in length, which terminates at one of the gates of the city, I found

found there a numerous guard, contadors, officers of the port, and a multitude of curious idlers. It was requisite my trunks should be opened, but they were very loosely examined; as soon, however, as they came to my books they refused to let them pass before a permit for that purpose should be obtained from the vicar-general of the inquisition: I hastened to him, and found him a little old man with the air of a perfect faint, mounted on a chair near a table, and reciting his breviary. He held out to me his hand to kiss; for my part, but little accustomed to a ceremony of this kind, and not aware at the instant of his intention, I shook it in a cordial manner. He requested of me a catalogue of my books: I answered, that they merely consisted of works relative to physic and natural history, suitable to a medical man and a botanist, and were so few in number that I had made out no catalogue of them: he was satisfied with my answer, and the bare mention of the names of the authors, and immediately gave me a licence for their entry.

Instantly the gates were opened to me, I waited on Don Thomas Taxueria, for whom my host at the Havannah, Don Bernardin Liagotera, had given me letters: the merchant of Vera Cruz appeared to feel perplexed at this recommendation, and informed me that he had no other knowledge of Liagotera than what was derived from certain commercial intercourse; and I set him much at his ease by informing him that, for the present, all that I expected from him was the kindness of indicating to me some good inn. He pointed out to me one opposite to the gate of Mexico, which I afterwards learnt was the best in the town; but, after this remark, what will be thought of the rest when I make known that the only furniture of my apartment consisted of a table four feet by three, and that two benches six feet by three, formed the only bed, worthy, indeed, of a Spanish gentleman. As for mattresses, chairs, looking-glasses, &c. all these no doubt are regarded either as superfluities, or conveniences of too extravagant a nature.

As soon as I had safely deposited my effects in this charming apartment, I repaired to the general of the fleet, Don Antonio Uloa: at his gate I found a guard of ten men: his secretary introduced me into a large hall with furniture of very ancient date, and announcing me as a gentleman who brought letters from Don Manuel Feliz Ruick, a little man, at most but four feet ten inches high, speedily made his appearance, dressed in an old jacket of nankeen, with silver buttons, grey-headed, and his hair without either powder or pomatum, tied and hanging over his shoulders; his countenance was bad, but his looks extremely mild and affable, and his eyes lively: a little diamond cross, suspended from a button-hole, bespoke a man of rank. Such was Don Antonio Uloa: I saluted him as I presented my letters: these explained the object of my journey, and intreated his assistance to obtain a passport for me to Mexico: he read them attentively; promised immediately to write on my behalf to the viceroy, and advised me to write at the same time myself. He invited me to be a frequent visitor at his house and table, admonishing that dinner was regularly served at half past one, and insisted on my dining with him that very day to begin; finally, he caused me to be presented to the governor by the major of the fleet, whom I recognized for the same personage who had demanded my passport.

On repairing to the governor's, Major Don Pedro de Verthuisen was so kind as to tell me my acquaintance would be very agreeable to him: to this compliment I made a suitable reply, and I had full occasion to prove it perfectly sincere.

Don Fernan Palacio, governor of Vera Cruz, was a very different character to the general of the fleet: his sour looks, his rough tone of voice, and rude speech, predisposed one against him at once. He readily granted me permission to reside at Vera Cruz, and

and botanize in his government ; but refused to return my passport, which the general recommended me to ask for ; and at my departure pretended even it was mislaid. I afterwards learnt that he assumed the governor of the Havannah had no privilege to grant similar passports, and intended to avail himself of mine, to his discredit, for which purpose he was so obstinate in refusing it me.

I left him much chagrined at the reception I met with : it however occasioned me the less surprise on learning, as I did afterwards, that he was on unfriendly terms with Don Uloa.

The next day the general did me the honour of introducing me to Dona Fulana de Boutilloz, the lady of the late intendant. She was a woman of fifty, who had been a perfect beauty, and still retained traces of her former charms : her lively and natural flow of wit, and her noble and open character, endeared her to every one. The recommendation of the general was undoubtedly of use, for that very day she offered me repeatedly her service. *La casa es a usted*, my house is yours, she several times observed, and that in a manner so cordial as persuaded me of her sincerity. She afterwards presented me to her daughters, and informed me that the youngest was on the point of marriage with M. de Verthuisen : in short, she insisted upon my becoming as one of the family. At the instant her son made his appearance, Don Juan de Boutilloz, a captain of the regiment of the crown. Soon as she saw him, "Hither, my son," she exclaimed, beckoning him, "here is a gentleman from your own country." This young man, in fact, had been educated in France, and had all the amenity peculiar to our youth. Such qualifications endeared him but more to his mother, who was as partial to the activity, politeness, and tolerant principles of the French, as disgusted with the idleness, want of nicety in dress, and the fanaticism of the Spaniard.

Young Boutilloz was soon on terms of closest intimacy with me : he acted as interpreter between me and all the family, and especially the ladies his sisters, who were constantly exacting French songs from me. I translated for them the romance of Berquin, at which they were softened even to tears ; and I made hence the conclusion that this little piece is truly as excellent as individually it appeared to myself, observing the effect it had on sensible minds, though foreigners.

Some days after, at the same house, I met with M. de Fersen, son of the lieutenant-general of that name : he advanced towards and embraced me, enquiring news from Paris, where he was born : he added that, being apprized of the arrival of a Frenchman in the country, he had for three days wandered in search of me, with all the anxiousness natural to a fellow countryman. When we left the house, the lady of it was so obliging to state, as M. de Fersen kissed her hand, that as we were both Frenchmen we ought not to be separate, and that it was a province he ought to fill, the bringing me with him, and rendering me partaker of those moments of recreation he occasionally passed at her house.

This amiable youth led me to his house, where I found M. Duparquet, a gentleman from Dauphiny, as well as himself a captain in the Corps de Genie. They made me stay dinner ; and here I was not a little surprised at finding our beverage cooled with ice, nor less at learning that this enjoyment, ample compensation for a thousand privations experienced here, is obtained for a trifle at Vera Cruz : daily eight mules, relieved at regular stages, arrive at this city laden with frozen snow from the mountain Orizaba, distant about forty leagues. By this plan a pound of ice is obtained for a real of plate, and ice creams a *lanana*, or a *la sapotilla*, four times as large as in Paris those charged fourteen sous, may be had for an equal sum.

The dinners given by the lady of the intendant were served up equally well in town as in the country, and what tended to render them the more grateful to me, the cookery and style were French.

In parties, formed by the individuals noticed, I spent my leisure hours ; but my botanical excursions were not forgotten : they occupied daily the interval between four and ten in the morning.

In the earliest of my walks I found the convolvulus jalappa of Linné. I gathered as many seeds of it as I was able, pulled up several roots, and had them verified by the druggists of Vera Cruz, who, without knowing whence they came, pronounced them the real jalap : their opinion, as it conformed with the description of Miller, convinced me of this plant being the true jalap of Mexico. I presented seeds of it to the general, and with them a root weighing five-and-twenty pounds : he caused it to be planted in a box, for the purpose of transporting it to Europe, and enquired if it was common in the environs of Vera Cruz : nothing however could equal his surprize, when I informed him that, if he was anxious for such a measure, I could engage to freight the vessel with it, that bore his flag from the exclusive produce of the vicinage. Such is the idleness, the ignorance of this people, that they give three reals * a pound for this root at Jalappa †, while they might have it for a quartetto at Vera Cruz, if they would but take the pains to collect it.

A discovery like this rendered me famous throughout the city : I was looked upon as a most extraordinary character in thus being able to discover a treasure in the very custody of those who were ignorant of its value. The esteem this gave me was grateful ; and the good disposition of the people generally towards me, which my discovery occasioned, I endeavoured to maintain and augment, not only by the earnestness of my study of nature, which was no irksome task, but also by a species of quackery, which I reckoned serviceable towards concealing my definitive projects. Whether in the fields or in the streets I constantly had plants in my hand, and either employed myself in observing them through a magnifying glass, or in dissecting them with nicest care. My room was overspread with papers, covered with plants, and my tables with phials and boxes containing seeds.

This policy indeed was requisite to form an excuse for my customs, and the walks I undertook, which else had been looked upon as purely vulgar ; for the pride and vanity of the Spaniards was not a little shocked at seeing me journeying on foot every morning the distance of four or five leagues, loaded with a port-folio, and attended merely by a single negro, who carried my books, a hatchet, a mattock, and my breakfast.

I succeeded even beyond my wishes in conciliating the admiration of every rank, and was known by no other denomination than the French physician. The sailors and soldiers laid in wait for me to ask advice for their complaints ; at first, with the best intentions, I prescribed remedies ; but when this became irksome to me, from their repetition and intemperance, I got rid of them by charging the cause to themselves. The constant disorders to which these folks are subject are a permanent spasm, occasioned and maintained by the practice of smoking tobacco, and the brandy and rum which they take without moderation : in consequence, I proscribed the use of these

* From 18d. to 19d. sterling.

† A town twelve leagues from Vera Cruz, at the back of a mountain, and handsomely built : here that famous fair is held ordinarily of four months duration, at which the interchange of the produce of Europe and America takes place.

articles, and forbade the applicants coming again to me for advice until after an abstinence of three days: the prescription speedily disgusted them, and they came to me no more; still I constantly saw and noticed them pointing me out to their companions, with signs of great respect. A number of other persons, tradespeople and individuals, of whom I had no knowledge, followed my steps with their eyes, and exclaimed with a kind of wonder, "Do but see that Frenchman, why he is going to Medelina on foot!" Unhappy people, so corrupted by ease and idleness were they, that these excursions, delightful to me, appeared to them insupportable; nay, to such a pitch is their inertness carried, that their meanest servants cannot go a quarter of a league without requiring a horse, nor enter a wood, till cased in leather to preserve their skin from musquitos.

La Medelina is a hamlet six leagues from Vera Cruz, whither it is common to resort in order to bathe in the river of that name. The spot itself has nothing to recommend it but its happy site, which draws thither many of the inhabitants of Vera Cruz. The bathing season begins in May; for the houses they are but wretched huts, almost lost in the aspiring grass; and for refreshments, scarcely is there a fowl or an egg to be had for money. Here, however, I passed two days in the most agreeable manner, in company with the general of the fleet and the family of the intendant's lady.

But it is time now I should give some idea of Vera Cruz.

This city stands in the Gulf of Mexico, on the margin of the sea, in a sandy and barren plain. Not the slightest culture embellishes its neighbourhood: on the south infectious exhalations from stagnant marshes contribute to render it exceedingly unhealthy. On the north, where, from the arid sand, salt in crystals may constantly be collected, is the road to Mexico, which for seven or eight leagues runs parallel to the sea. On the west downs of sand, ejected by the waves, obstruct the view of all but the loftiest trees.

In proportion as this sand, heaped up by winds from the east and north, becomes dry, it is again dispersed by the same winds, and thrown forward, either into the town, so as to cover all the houses, or farther inland: to this circumstance are to be attributed the downs by which it is surrounded. Whirlwinds, by raising this sand, occasionally obstruct the sight, and render breathing difficult.

Beyond this sandy plain and the mountains by which it is enclosed, are woods full of wild beasts, and meadows covered with flocks.

Vera Cruz is built in a semi-oval form: its largest diameter along the sea-shore measures from six to seven hundred fathoms. It is surrounded merely by a wall or parapet six feet high by three broad, surrounded by a palisade of iron-wood in bad condition. This wall, at intervals, is flanked by six indifferent bastions, or square towers, twelve feet high by twenty each side, some of them terraced, but the rest empty; the wall has neither ditch, counterscarp, nor any outward work. On the sea-shore, on the south-east and north-west of the town, are two redoubts, or rather terraced bastions, more regular than the others, with a cavalier, and a battery of cannon: the entrance into the port is commanded by these bastions.

The whole of the houses are of stone. The lime which mixed with sand forms the cement, is obtained from madrepores, drawn up from the bottom of the sea; as for the stone for the houses, it is brought from Campechy. M. L'Abbé Raynal, led into error no doubt by the information he received respecting this city, describes it as being built of wood, but I have the evidence of my senses for the contrary, and the engineers, to whom I shewed the passage in his philosophical history, assured me that the whole place did not contain a single wooden house: it cannot even be affirmed that such ever

was the nature of its structure, as I have seen at least twenty houses, *mayorascas**, which have laid in ruins for fifty years, the whole of the walls of which were of mason's works; I however imagine that persons have been induced to commit an error thus gross in their description from noticing the heavy and massive balconies of wood which entirely surround the houses as at the Havannah, and which principally exciting and engrossing their attention, will have caused them to make the statement they have done.

The houses are neither built with greater regularity nor are they more elegant than those of the Havannah, but the streets are wider and less close: they are straight, perfectly well paved with pebble, level, and well kept, which contributes to their neatness, and gives them the better appearance.

The only remarkable buildings are the churches; like those of the Havannah, they are rich in silver plate, as are the houses in porcelaine, and other furniture from China: in this consists the whole of the luxury of the inhabitants, for they are so temperate that chocolate and sweetmeats constitute almost the whole of their food.

Vera Cruz has three gates, that of La Medelina, that of Orizava, and that of Mexico.

Its only inhabitants are a slender garrison, the agents of government, sailors, and a certain number of merchants, or rather factors, for the vanilla, aniseed, and cochineal, which could not be exported by the galleons, the chief commerce for European goods being transacted at Jalapa, iron only excepted; which is taken from Vera Cruz. This collective population may amount to from six to seven thousand persons, among whom if the governor be excepted, the administrators and the officers belonging to the land or sea service, there are very few you can visit on social terms.

The men are, generally speaking, lofty minded and proud; either from this being the specific character of their nation, or owing to their excessive wealth in a country where gold stamps so much value on its possessor†. They comprehend trade very well, but here, as elsewhere, their natural indolence, and their rooted habits, and superstition, render them irremediably averse from labour. Incessantly are they seen with their chaplets and relics on their arms and round their neck: their houses are filled with statues, and paintings of saints; and their life is a series of devotional practices.

The women live recluse in their apartments above stairs, to avoid being seen by strangers; though it is by no means difficult to perceive that, but for the restrictions imposed on them by their husbands, they would be far more easy of access. Whenever they go abroad it is constantly in a carriage, as I have before noticed is the case at the Havannah; and as for those who have no carriage they are wrapped up in a large cloak of silk, which covers them from head to heel, and has merely a small opening on the right to enable them to see their road. Within doors they wear over the shift nothing but a small silk corset, laced with a gold or silver cord: the whole art of dressing their hair is confined to braiding it, turning it up, and fastening it on the top of the head. Still, though so simple their dress, they wear a gold necklace, bracelets at the wrist of the same metal, and at their ears pendants of emeralds of greatest value, so true is the observation, that fashion and a taste for luxury is prescribed by no rule! Generally speaking, the fair in this city are not handsome; for however rich their dress they shew a deficiency of grace and fancy, and, under an apparent reserve, are strongly inclined to lasciviousness.

The only amusements are the *negeria*, a sort of coffee-house, whither the genteeler sort repair to take ice-creams, and some imitations of bull-fights for the vulgar; unless

* Noble estates which devolve in the male line *ad perpetuitatem*.

† At Vera Cruz are seven or eight houses of commerce, in every one of which might be found a million of pesos-fuertes (225,000l.)

indeed under this denomination be comprized the processions and flagellations of the holy week, a period at which I arrived at Vera Cruz.

Twenty times during this week was I called to my window by the clinking of chains. What a shocking spectacle presented itself! now a penitent in a woman's dress, in a petticoat and body of linen cloth of a slate colour, with arms extended and fastened tightly in an horizontal position, his back and shoulders supporting seven old swords such as are used for signs by our armourers, and whose points collected in a stuffed pad pressed on the os coccis, his legs loaded with chains and iron weights, and in this garb marching slowly along through the city, and paying his devotional visits to every church.

An instant after this miserable object was succeeded by another mask, likewise in a woman's dress, but in white muslin and naked to the waist, a handkerchief covering the bosom, the legs loaded with chains, but the hands left at liberty. This penitent in the left hand held a crucifix, and in the right a rough whip with which at every hundred steps he lacerated his shoulders and reins till streams of blood ran from the wounds, and crimsoned the petticoat he wore.

In the space of a week I reckoned not less than eighty masks of this description.

The processions present nothing more attractive: every chapel has its patron saint modelled in wax, of the natural size, but of frightful aspect, which is carried on a litter by eight men who are relieved at intervals: all are dressed in women's apparel, the petticoat, the corset, and the mask of all are similar; that is to say, of linen cloth of a bluish slate colour. They hold those exhibitions in such esteem that penitents are to be seen thus accoutred all day long, nay, even from the evening before, the next and the following day.

Among these processions is one which, on account of the object of it, is deserving of mention: it was instituted on occasion of a fund of six thousand piasters, established to portion off annually four poor marriageable girls; but by an abuse too common, the lot now falls, by means of connivance, very often on those in easy circumstances, and at times on children of seven or eight years of age; and while the object of the institutors of this benevolent charity was the solace of misery, and the inculcation into these future mothers of children, of a spirit of religion and a modest deportment, the intent of the ceremony appears rather to be the instilling into their minds a taste for expence and a love of frivolity. The chosen parties are conducted to church in superb carriages covered with cloth of gold or silver, trimmed with magnificent lace, and adorned with the richest pearls and diamonds, which opulent ladies take pride in lending for the occasion. A squire, or a kind of sponsor, one of the most respectable persons in the city, gives the female his hand, and leads her, as in triumph, in the procession which follows the nuptial blessing. During my stay I twice witnessed this celebration; but out of the eight elected I certainly would have refused to have taken seven for servants.

Fronting Vera Cruz, at the distance of four hundred fathoms, is an islet on which the castle of St. John de Uloa is built, the fire of the batteries of which cover and defend the town: this fort, long after its first erection, was strengthened by more regular fortifications: it is a parallelogram, composed of four large bastions and three demi-lanes, with ditches, counterscarp, covered way, palissades and glacis from the south-west to the south-east, where the islet is daily encreasing, owing to the accumulation of sand, shells, and madrepores: on the south the port forms a sufficient fossé, as the ship of the captain of the port is anchored at half-cable length from the rampart, which has an elevation of from thirty-five to forty feet. Nevertheless, to prevent a landing, and the approach of boats

boats under cover of the cannon, the whole of the curtain, which is bare, as well as of the flanks of the two bastions bearing on the port, are fraized with stakes of a remarkably hard wood, as black as ebony, which sharpened, and rising a foot and a half out of the water, hinder any vessel approaching within musquet shot.

Here are three-hundred pieces of cannon carrying balls of from twelve to thirty-six pounds. Still the place is not impregnable, spite of the reefs which bound it on one side, and the fort by which on the other it is defended; and in this opinion I was confirmed by the casual glance of a French engineer with whom I conversed on the subject; for while he supported the contrary, he cast his eyes towards the south-east, where in fact is a landing-place of much less length from the fort than the principal one, and off which vessels assailing would not so long be exposed to the fire of the batteries which crown the fort from the south-east to the north-west, and might even anchor under the curtain, a vestige of ancient fortifications raised very high, the fire from which would hence be of no avail.

A square tower sixty feet high above the rampart, or the bastion of the south-east side, commands the city, the port, the whole road, and the entire vicinage, and serves for exhibiting signals, which are repeated by the ship of the captain of the port. I ascended this: on the first story is a terrace, on which is a battery of four brass twenty-four pounders, with a corps de garde of ten men. On the last story is a sentinel who is relieved every half hour, and gives advice of all he observes; and from his account it is, verified by the corporal of the guard, that the signals are made. At the time I was there there was but one battalion in garrison, with one company of artillery, and about a thousand convicts employed on public works.

The port of Vera Cruz is closed by this castle and the islet on which it stands. From forty to sixty ships of war and a hundred merchant ships may anchor here in from four to ten fathoms. The reefs which surround it as far as the Island of Sacrifices, towards the south-east and the north-east, break the waves, and render it secure against winds blowing from the intervening points; but to winds from the north-east to the west-north-west the port is exposed, and the north wind, which blows with great violence, frequently drives ships from their moorings and casts them on shore. To this road however, it is, the only one in the gulph of Mexico, that all ships laden with goods for Mexico repair, and hence also is remitted to Europe the precious metals and merchandize rendered in exchange by these extensive countries.

Seen from the castle the city presents a very handsome appearance. On the south it has a natural meadow, which forms an agreeable promenade except in the rainy season, when it is overflowed by a rivulet which forms a marsh at about a mile from the town, and furnishes the city with water; as, however, the rivulet is not the produce of a spring, but arises from filtrations from the neighbouring downs which collect and form a marshy pond, the water is neither fresh nor palatable, whence that is preferred by the inhabitants during the rainy season which is kept in cisterns in the castle; but in dry weather, when the water is filtered through a greater depth of sand, and consequently more purified, it is conducted to the city by means of a stone aqueduct.

Though this rivulet can boast but little depth of water it nevertheless nourishes caymans (alligators) from seven to eight feet long. I have myself frequently traced their footsteps, and even seen them plunge into the pool; but they are by no means dangerous.

Vera Cruz has but one suburb, which is very small, and lies south-east of the town. It contains two chapels, a bowling-green, and some few gardens; but these are in bad cultivation, and without any ornaments. The lemon, the palm-cabbage, and a few cocoa-

trees are all the productive ones that are seen: a bombax or cotton-tree with red flowers, the azaderach or bead-tree, and pistachio trees (plumaria) with red, white and yellow blossoms, are the only trees pleasing to the eye: hence the city is rendered so dull, and sterile of aspect, that but for the meadow on the south which serves as a resort for carriages, and the verdure of which recreates the eye, Vera Cruz would be one of the most tiresome residences in the universe. Fortunately nature, so niggard of her boons in the vegetable kingdom, has compensated in the animal by a large display of bounty. The city and surrounding country swarm with birds, whose various plumage and enlivening song, at once delight the eye and charm the ear. The streets of Vera Cruz abound in innumerable flocks of magpies of three different species, all of them of a jet black: the smallest is of the same size, as lively, and as numerous as our sparrows, but less noisy, and less troublesome; the second, of the size and colour of our blackbird, resembles it so much as often to deceive one as to its species; the third, called in our colonies *bout de tobae*, is a kind of parrot. These three species of birds are remarkably tame, and highly entertaining by their different antics: they never attack the seeds of plants, but prey on insects and the dung of mules, horses, &c. Larger than these three species succeeds the *vultur aurea*, so well described by Mr. Jaquin: the name of this animal would induce a supposition of its being formidable; it is however one of the least daring and most stupid of all the birds of prey, and never pounces on any thing alive: it is of the size of a turkey-polt, and much resembles it by its brown colour, and bare head, covered with a carunculated skin, and it has just sufficient courage to steal and fly away with pieces of meat from kitchens; for this purpose it lays in ambush until nobody is at hand, when it scuds swift and lightly in at the door or window, snatching up whatever chances to be in its way, and flies out at the opposite openings. Its most assured reliance is however on the sewers, the slaughter-houses, and the chance of the country; occasionally it is seen partaking with dogs, when these happen not to be very hungry, the carcase of a mule. The tropillot (thus the Indians denominate our vulture) is incessantly eating, and when at length full, sleeps by the carrion, nor leaves it till it picks the very bones. I have on a morning seen a dead mule lying in the road, and at night noticed only the skeleton remaining, though on the sand where it laid, I could not discern the minutest trace of the footstep of a dog; the carcase consequently must have been devoured by vultures: this bird is so little timid that it will scarcely trouble itself to remove from the way of a passenger, but, at the the same time, it is so fearful when caught, that it instantly disgorges the contents of its craw, which forms a resource for its enemy the frigate-bird, a species of pelican.

The tropillot is easily taken, rises but to a small height from the ground, and the scent of a piece of meat takes from it all inclination to fly away: if, then, this bird be pursued, all it relies on for escape is its legs, when it is easily run down: the cooks and children then amuse themselves with it, and after fastening tight round its wing a little bell, a bladder, or a ribbon, release it again; for the Spaniards, more humane than Frenchmen, take no pleasure in destroying life. We know very well that, instead of the flocks which now enliven the air, if Vera Cruz were peopled by the former nation, not a bird in time would be seen. *El tomar sol*, enjoyment of sunshine, so much the delight of Spaniards, appears to be not less grateful to these birds. To witness the seeming pleasure they receive from the presence of the god of day, they should be seen at sunrise, as, at the summit of a tree, or the top of a steeple, they simultaneously, or in succession, extend their wings, and keep in this attitude to receive on every part its warming rays, and again when they rise in air at noon, and skim over the town in swarms, which almost obscure the sky.

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On the margin of the sea, skimming incessantly over the waves and the shore, is seen a species of larus or gull, which has the gait and flight of a snipe, but which is scarcely half its size, and of a greyish blue plumage. Does a *temporal* make its appearance, or a shark seek its prey in the port, instantly swarms of little fish, smaller than our gudgeons, throw themselves out of the water on to the sands; then does this little gull, after a most amusing spectacle, as it pounces down with the rapidity of lightning from the regions of air, rises again, and repeats this evolution incessantly for the space of a quarter of an hour: I once had the curiosity to reckon the descents of one of these little birds: in the lapse of seven minutes, I counted eighty: it is indeed true that its extreme impatience oftentimes causes the loss of its prey, but nothing can be conceived more admirable than its excellent management and dexterity in seizing the fish at the surface of the water without even moistening its wing.

The buoys in the sea, and the bowsprits of the vessels in the port, are covered with onocrotali, (the tantalus of Linné, the tree-pelican of America), the pelican with a large craw, denominated by Linné the true pelican, boobies, and ducks of every species.

On shore the rivulets and marshes are inhabited by swarms of spoon-bills, four species of storks, as many of divers and coots, and snipes more than twice the size of those which are seen in Europe.

The meadows are covered with beautiful starlings of a black colour, with the shoulders and half the wing a blood red.

On the bushes and hedges the male and female cirris or heron, appear to form three species, equally rare in their kind: the male from the splendid hues of its plumage, and the female from the blue mantle which forms its summer garb, and which in winter changes to grey. Here too is seen the cardinal of as bright and shining a red as that of Louisiana, its song, not so varied nor so melodious as that of the nightingale, is yet as powerful and as bold. Here a lark, of the size and colour of the wit-wall or golden thrush, but more handsomely feathered, and of sweeter song than our European lark; the ramphastus, toucan or American goose, whose beak marked with yellow and black, is longer than its body from head to tail: honey-suckers or humming birds, (trochili) of all colours and of various size: one species of them which soars aloft in air, singing like the rising lark, has its head and belly, which it proudly displays, of a scarlet colour; in another species it is of the most splendid azure.

In the woods are found a kind of partridge as large as, and of plumage much resembling that of our guinea fowl; another species no larger than quails; craces or hocos of two species with crops and crests of the colour of wax, as large as turkeys, and truly a royal dish; green perroquets, no larger than sparrows; aras or araracoyas; Amazonian perroquets of a green and yellow hue; four kinds of turtle-doves, in which class is that species denominated ortolans by the colonists of Sant Domingo.

Vast numbers of bulls and cows, almost in a wild state, rove through the forests; a species of rabbit makes these likewise its haunt; it is smaller, but in far greater plenty, than with us. Bucks and does, more than two feet high, are here so common that venison is sold in the markets at only three reals the pound. Tortoises are very numerous; land-crabs too, as large as a man's head, which leave the forests for the town, penetrate into the houses, and climb into the granaries; another species is met with so audacious that when surprised, instead of attempting to escape, raised on two claws, it defends itself with the others. A kind of squirrel much larger than ours, and perfectly of an ash colour, is another inhabitant of the sylvan kingdom, with ignans

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or lizards, which grow to the prodigious size of two feet in length, by ten inches in breadth, and furnish an exquisite dish for those not affected with venereal complaints.

Finally, the sea swarms with fish of most delicious flavour, which are sold almost for nothing in the markets.

Such are the riches I remarked in this country, where my stay was limited to but one season, and where on this account, and owing to the important object of my mission, I was enabled to pursue my remarks to no greater length; such are the objects it presents, so worthy of the curiosity of a naturalist, and so well calculated to render interesting a sojourn at Vera Cruz.

Though the general assured me that the country produced rattlesnakes, I met with none, whether my deviations were along the marshes sides, or whether I strolled through the woods; but every where was I pestered with gnats (maringovins) musquitos, and chicos or karapattas: had I ever the misfortune to brush with my cloaths the branch of a tree, or any herbage, I was instantly covered with these insects: the dress of the centaur Nessus, that so fatal present of Dejanira to Alcides, had not a prompter or more tormenting effect than the intolerable itching occasioned by the bite of this last tribe of insects: they penetrate in an instant through wool and silk, and the Spaniards, in order to preserve themselves from the torture they occasion, are constantly accustomed to clothe themselves in pantaloons of Orissava leather, and boots, and never venture through woods, except where they cross the roads they have to pass. What however is extraordinary, this species of tineæ or wood-louse (the karapatta) is only found in the neighbourhood of the sea, the interior of the country, ten leagues inland, being free from its tormenting persecution. These insects at first occasioned me dreadful sufferings. Three or four times on my botanical excursions, was I obliged to pull off my breeches and boots, and scrape them off me with a knife; on reaching my lodgings, I was used to strip in haste and throw all my dress into water, and found full employment during a couple of hours, in washing myself, and separating with a pen-knife these tinææ from my skin; these are truly the dragon, multiplied to infinity, which guards the fruit of the Hesperides.

I had now been six weeks at Vera Cruz, nor would my stay have seemed long to me, but for the anxious, the impatient desire I nourished in the inmost recesses of the heart, of penetrating deeper into the country, and attaining the end of all my secret prayers.

Not all of this delay however was thriftless; as a furtherance of my designs, I listened to all I heard; and put opportune questions occasionally, as if on a matter of indifference, and merely for the satisfaction of an idle curiosity; and by such means succeeded, without the least indiscretion, in forming conception of the measures by which my enterprize might be carried into effect.

One day while conversing with M. de Fersen on the subject of the riches of our colonies, and the commerce they induced, he enquired of me if we cultivated cochineal? I answered in a careless manner "yes, certainly." "What," replied he with astonishment, mingled with vexation strongly depicted in his countenance, "do the French then mean to deprive us of this branch of commerce hitherto exclusively our own?" "Why not," rejoined I, smiling, and rallying him: "do you then fancy yourself privileged wholly to monopolize this excellent boon of nature?" "In what part of St. Domingo then is cochineal cultivated?" enquired he. "At Fond des Negres," I boldly answered, for having already deviated from fact, I thought it improper to draw back, and was at the time far from being aware of speaking the real truth; and

and that the white or Sylvester-cochineal did indeed exist at the time at Mole St. Nicholas; but I wished to prepare resources against surprise and mistrust, in case of being in the end detected in bringing away the insects.

At another time the major of the fleet, who had repeatedly promised to shew me cochineal in the vicinage of Vera Cruz, took me an airing with him along the meadow, and proud of his rare knowledge, pointed out to me on a cactus called by the Spaniards tunas, for the cochineal insect, a sort of caterpillar enveloped in white cotton, which turned out to be merely the worm of the phalena or moth which preys on that precious insect, and from which I had so much difficulty in cleansing my nopals; I positively denied that it was the cochineal, and this mistake of my preceptor led me into a direct error, I mean to say, a persuasion, opposite to the fact, that the insect did not exist in the neighbourhood of Vera Cruz, a wrong persuasion which prevented my pursuing my search for it any further here.

The major undoubtedly related to Don Uloa what occurred during our ride; for the next day, while at dinner with that general, he enquired if I had not seen cochineal the day before; I was apprehensive that this question was meant as a snare, and this the rather as I fancied he was observing me as he looked in the glass before which, with his back towards me, he was adjusting part of his dress; and assuredly, if such had been the case, he must have seen my confusion; I endeavoured however, as well as I could to compose my countenance, and answered, that what I had seen was not cochineal but a worm; that worms were without feet, and that the one which had been shewn to me was long and cylindrical, whereas, either the cochineal must have legs and a body of hemispherical figure, or the works of Linné, and of Pedro Gaza and Hernandez, both Spanish naturalists, who had thus described the insect, deserved to be given to the flames.

I had scarcely escaped from the peril I have related, before I had to encounter another: in the course of dinner the general of the fleet offered to procure for me from the governor of Mexico the appointment of botanist on board the fleet then equipping at Acapulco for the purpose of making discoveries north-west of California, and to insure me a salary of two thousand dollars a year, with besides a thousand in hand for my equipment: he dwelt strongly on this proposition, and offered to present me himself to the viceroy of Mexico, to whose court he was about to repair. By accepting this offer I must necessarily belong to the sovereign of Spain as a botanist; but I did not suffer myself to be persuaded by the great advantages held out to me, from serving my country; the hope of rendering it a service weighed with me more than the seductive offers of Don Uloa. I, however, returned him unfeigned thanks, and excused myself without evincing any disdain of the proposal; he again pressed for my acquiescence, when I replied that, having sustained no wrong, having no cause of complaint against the country to which I had the honour to belong, I could not esteem myself justified in abandoning it; and that, being a subject of the King of France, it was not allowable on my part, at least without his permission, to dispose of my services to any other prince; I added moreover, that being unprepared for any such expedition, I could not resolve on creating in my whole family, and especially in a father who felt for me the tenderest solicitude, that uneasiness which would follow the ignorance of what had become of me, and where I was; at last, as his solicitations were still continued with much earnestness, I waved the conversation, and began some other topic.

We spoke of the Paraguay tea; from the description of it given to me, I was unable to comprehend farther than that it was the leaf of some tree. I asked the governor in a joking manner, whether the consumption being so very considerable, there was no
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tax on it when sold ; and he answered, laughingly, that it really was in contemplation. After which, solicitous of turning the conversation on cochineal, he added that it was about to be farmed in Mexico. The very mention of cochineal startled me, but I was upon my guard.

I am unaware whether my refusal had or not engendered any ill will towards me in the general ; but some days after he affected to speak of botany in a very slight manner : he could not conceive, he said, how any one could take the trouble of making collections of plants ; that, for his part, had he the finest herbal in the world, he should think it of no other value than to light fires with. Hurt at an attack so rude, I looked at him with attention, and warmly answered, that for my part I was so unfortunate as to be ignorant of mathematics, of astronomy, and navigation, but that, if perchance a book treating of those subjects fell into my hands, far from committing it to the flames, I should carefully preserve it for my children, or for some other person who might better than myself be capable of appreciating its value : I could not observe that Don Uloa felt any ways offended at the firmness of my remark ; nay, I have generally noticed that the Spaniards, though naturally lofty and proud, despise those who have not the hardihood of thinking or expressing themselves with becoming boldness and dignity. Still had I to ascribe to this conversation the afflicting consequence, that, though he never gave me occasion for complaint, the general never after seemed to entertain the same esteem for, nor confide in me to the extent I wished, and that, for the future, I should have to place little reliance on his interest.

I felt the uneasiness this assurance occasioned me, materially increased upon reflecting on the observation of the captain of the quarter-deck, who one day dining with the general, in a naïf manner, confessed, that when a lieutenant, he had been appointed in conjunction with one of his comrades, to accompany the Abbé de la Chappe on his journey from Vera Cruz to Mexico, apparently as a mark of distinction, but in reality for the purpose of watching his movements, and preventing his visiting the works of the fortress of Piroié in the vicinage of Jalappa, which were then under hand : I drew, as a conclusion from this, with greater reason as I had come to the country without a passport from the court, that I also was beleaguered with spies ; these I reckoned could be no other than my officers of the corps de genie, and under this impression, it was not without much disquiet I observed their noticing every thing, and ferriting every corner of my apartment : however, reflecting that I had had the prudence of concealing my plan from every body, and that no papers I had could betray me, I became less alarmed ; I even passed my time very pleasantly with my fancied spies, visited them very frequently, and professed great attachment to, and confidence in them.

They told me much respecting the Abbé Chappe-de-Haute-Roche ; they themselves had made corresponding and simultaneous observations in the province of Sonora, at the time of the expedition against the savages, while the Abbé was observing the transit of Venus over the disk of the sun.

The arrival of learned men in this dull country is so remarkable that it is traditionally preserved in the memory of every body, and forms an epoch as noted as the appearance of the celestial bodies they come hither to observe. A Peruvian marquis whom I met with at the Havannah, never swore by other name than de la Condamine ; he was indeed generally well beloved, and his departure was seen with sentiments of regret by all the Peruvians ; this by Don Uloa was not however attributed to any honorable desert in him ; he told me that he was a jocular character, much addicted to pleasantry in his conversation, and complimentary, even to adulation, towards the

Peruvians, whose friendship and affection he was solicitous of captivating ; that at bottom he was a shallow brained fellow, full of presumption, and ready to sacrifice every thing to the acquirement of fame ; he added, that he had the meanness to obtain a classical description from Mr. Jussieu of Quinquina, and robbed him thus unfairly of the honour due to him of its discovery.

I availed myself of the opportunity a conversation on this head afforded, to learn the truth of the relation given by M. de la Condamine, of the murder of Segniergues, respecting which I had always had my doubts ; I consequently put many questions on the subject to Don Uloa, the result of which was as follows : Segniergues fell in love with a tradesman's daughter, who was under promise of marriage to an Alcalde of the place : he met a return, and even more than a return to his passion ; but, satiety cooling his warmth, he fancied he could not shew his gratitude towards the lady in a better manner than by endeavouring to renew the engagement between her and the Alcalde. Now in matters of this nature, the Spaniards are to the full as delicate as the French. The Alcalde turned a deaf ear to all suggestions on that head, and Segniergues threatened compulsory measures ; *inde iræ*. As ill luck would have it, Segniergues went to a bull fight, and was seated in his mistress's box, at the instant the spectacle was beginning, and the Alcalde was issuing his orders for all the masks to leave the arena. The father of his dulcinea, obstinately determining to remain, was greeted with a threshing, and the daughter, in the box where she was seated, recognizing him by his cries, wrung her hands in greatest trepidation and alarm. " My God ! my God ! she screamed out, it is my father they are beating ! " At these words, another Don Quixotte, Segniergues jumps into the arena out of the box, and, sword in hand, cutting and pushing, attempts to force a passage through the posse of officers ; the number of alguazils increases, and the mob fly to their assistance ; disorder and tumult are at their height ; and though the Alcalde issues no other order than for the arrest of Segniergues, he gets killed in the fray. In this event there is nothing but what is perfectly natural, and what might be expected from the petulance common to Frenchmen, and the arrogance of a young surgeon, who, intoxicated by a fortunate opening, succeeded by the most happy success, imagined in himself a right to do as he pleased with the Peruvians, and injure them in their very home-steds. D. Uloa further assured me, that no one but M. de la Condamine would have instituted the process which followed. He likewise related to me the adventure of the night, passed in Pichincha, by M. de la Condamine, who, out of bravado, had separated from his party, and lost his way, and how he jeered him upon it in the morning, on his reaching the rendezvous, drenched with wet, benumbed with cold, and dying with hunger : " What a fine night this, eh, M. de la Condamine, said he, what a precious page for your journal ! "

On another occasion the conversation turned on the Duchess of Pompadour, with whom he had acquaintance when in France. From the affectionate manner in which he spoke of her, I guessed he was indebted to her interference for his advancement at the Spanish court.

What however to me was far more interesting than all, was his account of the affair of New Orleans. Though he might appear to me inclined to relate facts in a manner widely different from that used by certain enthusiasts, the unaffected manner in which he described the rude treatment he had to endure, the little animation or vivacity he mingled in his recital, persuaded me that the revolution was no other than, as he assured me, the effect of misconduct and imprudence ; and that it was kindled and blown into a flame by the cupidity of the chief administrators of the affairs of the colony. The revenge taken by the Spanish court was not merely a consequence of

the representations of Don Uloa ; it was a merited punishment of what was considered an act of rebellion, and such as in any other nation would probably have been extended to a far greater number of delinquents. The general agreed that the vexation of the people, at seeing themselves turned over like inanimate beings, or animals sold in a market, to another master in Lewis XV. was not without foundation : " But then," he observed, " as governor, what had I to do with this vexation ; how could I remedy it ; or how even the King of Spain himself, sufficiently chagrined at being obliged to be content with so small a compensation ? Circumstances," added he, " alone were to blame, and the hard necessity to which, and to the insistence of a powerful monarch, he was obliged to submit ; while for the new government it has not after all been either injurious or severe to those by whom it was opposed." I have heard much fault found with Don Uloa ; but all the subjects of complaint that were alledged against him were charges of familiarity unworthy of his rank, and a shabby meanness in his domestic concerns. He has never given room for any one accusing him of injustice or cruelty ; he was in fact the log of fable, his excessive patience made him be despised and dismissed. O'Reilly, who succeeded him, was the stork.

However much amused by these narratives of the general, I never lost sight of the object I had in view. I frequently visited Don Athenas and Don Lobo, two Spanish merchants ; but saw them thus often merely for putting myself in the way of hearing matters relating to my plan.

One day while in company with my French engineer, at the house of the latter merchant, I saw him examining certain packages of vanilla. I enquired, as if casually, from what quarter it was obtained, and learnt that it came from Guadalajara, sixty leagues distant, or from Guaxaca, the distance of which latter place was a hundred leagues from Vera Cruz ; also that it was cultivated by the Indians. They next talked about cochineal : I did not, as may well be conceived, begin this subject, but I profited by what I heard. I learnt that the cochineal from Guaxaca was preferable, and yielded a more beautiful colour than that from Flascala, or Guadalajara, which made me resolve on choosing Guaxaca for the spot I should repair to. I had moreover two other reasons equally weighty for this decision : the first, the better opportunity I should have of obtaining the most perfect information respecting the cochineal, in a country where it is largely cultivated ; the second, the circumstance of this road being less frequented than that leading to Mexico by Flascala and Guadalajara, and this circumstance affording me a greater facility in avoiding highwaymen, and inquisitive eyes. It is a certain matter, in fact, that, resolved as I was on the journey, though I should not even obtain my passport, and in spite of all the viceroys in the world, I ran much less risk of discovery on the road to Guaxaca, on which I should not be suspected, than on that of Mexico, the only city worth seeing, that only for which I had sought a passport, and on which I should be sought after on the first notice of my departure.

Thus, with a resolution, if I should obtain a passport for Mexico, to use it merely for Guaxaca, the route to which I had adroitly learnt from a Frenchman who had been in the service of the late viceroy, I waited with impatience an answer to the three memoirs which in succession I had addressed to the viceroy of Mexico, to obtain the so much wished for passport*, and ceased to frequent the house of Don Uloa, except to enquire respecting it.

* Even Spaniards themselves, from whatsoever part of the world they arrive at Vera Cruz, are not allowed to leave it without a passport from the viceroy.

At length, on Wednesday, the 30th May, he in a very cool manner before dinner announced, that he had received an answer from Don Bukarely *, in which he plainly signified it was not in his power, as I was a foreigner, to admit of my entering *et famoso reyno*, except by special order from the court of Spain. This news affected me far more in reality than I chose to shew, and I made a very bad dinner, though without attending to what I did I devoured a great deal. The general did not fail to enquire what I meant to do. I pretended to be satisfied, and to be determined to demand the necessary passports through the court of France, and wait for them at Vera Cruz, or in case of my being sent out of the country, to go myself in search of them; but I had already made up my mind in case of such an event occurring as had happened. As Don Uloa had a quarrel with the governor, I naturally concluded that the latter would have no knowledge of the objection raised by the viceroy, and decided on requesting of him a distinct passport for Orissava, which was within his jurisdiction, and about forty leagues from Vera Cruz. By means of this passport, to the licence in which I meant to give the trifling extension of sixty leagues, I hoped to reach Guaxaca, but hardly to itself did my soul unburthen this design, and with much more reason was it then reserved from others.

I went in consequence to Mr. Fersen, and, concealing from him the refusal I had experienced, intimated how impatient I was to reach Mexico, what vexation so much tardiness occasioned me, and how happy it would make me if even I merely obtained permission to herborize on the volcanic mountain of Orissava: he stopped me upon this, and proffered, in the handsomest manner, himself to solicit the governor for the favour I sought. I flew into his arms, embraced him in the most affectionate manner, and that very evening, as a token of my grateful feelings, sent him certain books which he had manifested a desire to possess.

I saw him the next day; he had dined with the governor, and obtained the passport. On Saturday he brought it me in good order: I concealed from him in a great degree the transport I felt, lest he should recognize the great importance I attached to this paper, and be anxious to search into its motive.

The next day (Sunday) I passed in preparations for my journey, and dined with the general, that he might have no suspicion of my project.

Monday I was to have hired horses in order to set off the next morning. The morning of this day, this fatal Monday, I rose in raptures of traitorous joy, and gayer than ever before; I repaired to the dwelling of Mr. Fersen for letters of recommendation to Orissava, breakfasted with him, and returned home to complete the packing of my things.

Of a sudden I perceived a man in a blue coat with a red cockade, enter my apartment: he was quite out of breath, and looked wild, sinister, and angry; as soon as he was able to speak, he announced himself as the secretary of the governor, and ordered me, in Spanish, in the name of the King, to give up the passport which the governor had entrusted to Mr. Fersen. These words, which I but too well comprehended, affected me as would have done an electric shock. I alternately became pale and red, and feigned, in order to have time for recollecting myself, that I could not understand what he said; but he so often and so distinctly repeated to me, *el papel que el señor gobernador entregó al señor D. Francisco de Fersen*, that I thought it vain any longer to

* However ungrateful to me the name of this nobleman, I here give it for reasons which it may not be difficult to comprehend: he was called El Excelentísimo Señor, y Beato Fraile, Don Antonio Bukarely y Ursua Teniente General de Los Reinos de Nueva España.

turn a deaf ear: then all at once, with another turn of features, and assuming a gay and gracious air, as if I began to comprehend him, I said I was incapable of making any improper use of a kindness I might receive from the governor, and delivered up the *papel* so much sighed for by me, begging him at the same time to present my respects with my thanks.

I wished, as he seemed much fatigued, to induce the secretary to rest himself; but he begged to be excused, assuring me that he had express orders to make no stoppage any where until he had brought back my passport, and not to appear before his master unless he took it with him.

I readily conceived from these words that some alarming storm was bursting over my head; but still, using dissimulation, I asked him, apparently with the utmost indifference, what possibly could be the motives of so sudden a change in the sentiments of the governor? He answered, that the post that day had brought certain orders from the viceroy concerning me, in virtue of which he verbally notified that I was forbidden, in the King's name, to leave the district of the city of Vera Cruz.

I hastened to Mr. Fersen with such impatience that I almost flew. I saw, I heard nothing, and was unable, but hastily, and in half-ejaculated words, to relate to him my disastrous adventure, conjuring him at the same time to conduct me to the governor, in order to have this matter elucidated. We repaired to the palace, and found there the governor; for his part, perfectly satisfied with recovering his *papel*, and making no computation beyond, he received me very politely, but at the same time repeated to me the forbiddance before announced by his secretary, of exceeding the limits of the jurisdiction of the city; an injunction, he said, which by order of his superiors, he was bound to communicate. M. de Fersen joked with him, observing that, if I had taken his advice, he would have found the bird flown; but afterwards, in a more serious tone, he enquired what possibly could have originated so rigid an injunction. In answer, Don Palacio exhibited to us the letter of the viceroy, written after a deliberation of the audiencia real of Mexico, and the conclusum of the procurator general, grounded among other matters on the apprehension of opening to strangers the secrets of the rich culture of the country. Here my heart panted so violently that I no longer heard any thing but the order for my leaving the country, (an order quite the reverse of that I solicited) beginning: *pero de regresar in su tierra*. On this the governor, who read the whole with much emphasis, laid still greater stress, reading it even thrice over, and shewing me the letter where it was written: in fine, he was expressly enjoined to be himself present at my going on board, to draw up a declaration to that effect, and certify the same to the viceroy. He then, speaking for himself, desired I would inform him when I meant to depart, and what ship I meant to sail in. This I promised; after which he took leave of me, making a thousand excuses and professions, and even going the length of calling me *hijo mio*, or son; but I was not his dupe.

On leaving the palace I took a hasty leave of Mr. Fersen in the street, and repaired to my lodging, deadly sick at heart: I walked backwards and forwards, now threw myself on a seat, and now into my cot, swinging it from one side to the other with such violence as to risk breaking my head against the ceiling; not the least ray of comfort beamed on my mind; in vain did I exclaim to myself aloud, if possible, that I might listen and become less distracted. In vain did I exclaim, Be calm, thou mad man! poor intemperate fool, take pity on thy intellects! Art thou not yet at Vera Cruz? hast thou not reached this distance on thy road? and dost thou not still remain? Oh! yes, retorted anguish, but thou art ordered hence, thou must go, and empty-handed

handed go thy ways! Thy plan of four years standing, even in the very port, now falls to wreck; four years are lost of the profession thyself selectedst; that hope of fortune vanishes! so fondly pictured in thy mind; the advances made by thy family, the bounty of thy sovereign are vain, and foolishly gone; thou failest in an affair undertaken in contradiction to the advice of thy father, thy friends, and every one; an affair which for four years has subjected thee to nothing but alarms, chagrin, mortification, toil, and dangers of every description; and what a blessed profit hast thou gained! Thou hast rashly pledged thyself to the minister, and what account hast thou to render? Shame, humiliation, ridicule, contempt, will be thy lot on every side thou turnest; and worst of all, thy object will remain uneffected: the Spaniards exclusively possess their cochineal! Thinkest thou of this, and dost not die of anguish? What then, is grief so little to be feared; is it so powerless of suffocation?

I passed the whole morning a prey to such tormenting reflections, and under the greatest agitation, swallowing three quarts of lemonade, but without the least appetite for food; no, the smallest morsel would certainly have choked me.

At length, tired and overcome by the weight of so much affliction, my mind made a last effort for relief; by dint of perpetual repetition, — thou art still at Vera Cruz — the fundamental point of a desperate project presented itself to my ideas; I calculated, that as no appointed time was fixed for my departure, and as there was no ship in the port which would sail for three weeks to come, I might in a fortnight's time complete a stolen journey. Thou absolutely must, said I to myself, penetrate into the interior, though destitute of passport, must bear away the fleece for which thou hast failed, despite of all the dragons in the way. Inflamed by this idea, the very apprehension of being unable to realise it threw me into a cold sweat.

Gelano le vene, bollon i Spiriti.

But this beam of light dispersed the former gloom, and brought with it a portion of tranquillity. I now thought of nothing but developing my plan, and digesting its detail. I walked out in the evening to take an airing, and went to the Nieveria, where I treated my engineers. They complimented me on forgetting so soon the vexation to which I had in the morning been subject. I suffered them to remain in their error, and returned home, where, without taking any supper, I passed the night in reviewing the plan I had projected in my mind; in retrenching, adding, and changing its minutiae, and in calculating on probabilities and accidents. At length I fell asleep, and, refreshed after three hours, found my spirits less heated, and my head more clear: at day-break, however, I reflected with some surprize that there was no room left for any alteration in the plan projected the night before, a circumstance arising from my peculiar and constrained position: *Malum est consilium quod mutari nequit*, says Tacitus; this I repeated to myself but in vain. I could find no plan better than the whole I had in mind, and no choice left but either to put it in execution, or return unsuccessful: the latter to me was more dreadful than death itself, and this at once justified in the eye of reason the evident rashness of the attempt.

I rose in the morning rather less content than on the morning before, but sufficiently so to look on the maximum of danger I risked with a dispassionate eye; I found the worst that could happen to me, in case of arrest, would be to be sent back, tied hand and foot, to Vera Cruz, and there to be imprisoned in the fort, or on board the ship of the general of the port, until my embarkation; in short, merely a failure, that probably might not take place, in my object, which would be the case however at certainty if I did not attempt the journey.

Every

Every thing tended to strengthen me in my last resolves, though I reflected upon many obstacles I should have to encounter.

In the first place, nothing less than a miracle, on a road over which so many pikemen were dispersed for the purpose of arresting deserters and strangers, could guard me from being asked by some one or other of them for my passport.

In the second place, my dress was not that of a Spaniard, and this inconvenience neither time nor my means allowed of my remedying; this circumstance shewed me a foreigner, and exposed me the more to the looks of curiosity.

Thirdly, an appendage to the last noticed predicament, I spoke the Spanish language very indifferently.

In the fourth place, I was almost entirely ignorant of the road, and it was only by the merest chance and nicest management I was enabled to learn by what gate I had to leave the town.

Finally, it was necessary I should set out on foot, in a climate where I should have much to encounter from the season of the year, and the sands through which I had to travel. I must also go unprovided with linen, provision, change of dress, and books, and without instruments to reap the possible result of my excursion, in encreasing our knowledge of natural history.

The plan I framed for remedying these inconveniencies was as follows: I shall travel on foot, said I to myself, as a botanical physician resident at Vera Cruz, in search of simples; I shall assume the appearance of taking a walk rather than being on a journey, shall lodge only in the poorest huts of the Indians, and in places away from the high road, pretending to have lost my way; I shall avoid all towns, hamlets, and villages, where possible, and where not, pass through them by night; I shall declare myself a Catalan from the frontiers of France, which will explain the reason of my speaking French well, and the Spanish but indifferently; I shall always go neatly dressed, wear some trinkets, affect a good-humoured and free disposition, and pay liberally for all I take. With all these precautions I must indeed be unlucky if I should be taken for a foreigner or a deserter.

In fine, after some little provision against the most urgent wants, for example, a broad brimmed hat, a net for the hair, a rosary, an indispensable article, &c.; and after setting aside about three hundred gourds in quadruples, I fixed upon the Friday night following for my departure.

In the mean time I visited my friends and acquaintance, whom I apprized in a loose manner that I meant to pass the remainder of my stay with Madame de Boutilloz, at Medelina.

On the Friday I dined with the general, to whom I related the trick I had played the governor. It seemed to please him greatly; and he assured me, if I had suddenly made my departure after obtaining the passport, no notice had been taken of the matter.

The remainder of the day I passed with the engineers; and returned home to reflect a few moments on my undertaking.

It was about nine o'clock when, after carefully locking up all my effects, I departed, as if merely to take a walk.

I soon reached the rampart, scaled it, and bade adieu to the city.

For a long time I travelled briskly along through the sands, under favour of the light afforded by the stars; but a violent wind effacing all traces of the road, and the sky being overclouded, I found myself wandering I knew not whither, at the distance of more than a league from the town: undecided, I went first one way then another,

to the crowing of cocks, and observed the rising of smoke, but all in vain. Though I had twenty times before travelled over these spots, night, by enveloping all objects with the same shadowy veil, disfigured the rallying points which otherwise might have struck my memory. I climbed large mounts of sand, some firm, and others moveable, until I was utterly exhausted. At length anxiety, combined with fatigue, made me determine on re-entering the city; but now was the embarrassment to find it, for I no longer distinguished its fires: at length I saw one at the distance of three hundred toises, I ran thither, it was the cabin of a free negro whom I had seen before in my neighbourhood. I told him I had lost my way in returning from Medelina; he directed me on the right road, and I was exceedingly surprized at finding myself a quarter of a league south of the city, while I imagined myself in the west. I immediately scaled the rampart, and returned to my home, terribly fatigued, and still more vexed at my bad beginning.

However, after changing my linen, I threw myself into my hammock, and enjoyed a sleep as sweet as it was necessary. The next day, at three in the morning, I left home a second time, and again scaled the ramparts, this time with some risk of breaking my neck; — behold now Don Quixotte in the country.

I used every precaution not to miss the road; but directing my steps too much towards the north, I again strayed from my way, and was lost nearly an hour in the sands; however, recognizing in the heavens the ear of corn of the constellation Virgo, and Mars, and Saturn, which were already in the east, I directed my steps westward till day-break: at four I over-heard the country people going to market, and, guided by their voice, kept on a parallel with the road, but about a hundred fathoms distant, to avoid being seen. At length, by dawn of day, the road taking through a forest, I was obliged to enter it, but I took the precaution to slacken my pace as often as I distinguished any Indians, negroes, or Spaniards; after they had passed I made up for lost time. At five o'clock I had cleared the forest, and was two leagues and a half from Vera Cruz: here the road divided, and occasioned a new embarrassment. Perceiving a muleteer with a train of a hundred and twenty mules advancing, I put questions to him with caution, and learnt that he came from Guaxaca, by the road of Monte Calabaça, which he pointed out to me, observing at the same time, that he passed it the day before. After this, Very good, said I to myself, to-night I shall sleep at Calabaça; and sauntering leisurely along till he was out of sight, proceeded on my way; but when no longer visible to the muleteer, I got on at such a rate that by eleven o'clock I had travelled nine German leagues. I drank a glass of brandy and ate a biscuit in a tavern by the road side near the forest: this satisfied me till nine o'clock, when I was parched with thirst. I was walking in a level savannah thinly strewed with copses of mimosa cornigera, bombax, ceiba, and wild fig-trees; save where these made their casual appearance the earth was bare; for we were now at the close of winter, that is to say, of the dry heats, which parch all the herbage; and the cottagers had set fire to the dry grass, to admit of the young blades pushing after the rain. It was to me a spectacle truly pleasing to behold, already, from the plain where I stood, the mountains Alvorado on the south, those of Orizaba on the west, and the Sierra Leona on the north-west, forming a natural rampart extending the space of a hundred and fifty leagues, and which mountains I trusted soon to surmount; but in the mean time I was dying with heat and thirst. I met two muleteers, conducting two hundred and fifty mules: I entreated them to sell me some water: they answered they were not water-sellers, but at the same time one of them unfastened from the pommel of his saddle, a bottle full and presented it to me. When I had drunk after this fashion much

at

at my ease, I pulled out my purse ; but, sticking the spurs into their mules, the muleteers merely called out, *Va usted con Dios*, God be with you.

I continued my way : by eleven I found myself as thirsty as ever : I fancied I distinguished a hut ; it turned out however to be only one of those Mexican ornaments, of which on my road I met with several, formed of earth in a pyramidal shape, from thirty-five to forty feet high, on a base of twenty, and bearing a perfect resemblance to our ice-houses. I looked round in vain on every side, no habitation was visible nearer than six leagues towards the north ; I could not travel thus far out of my road. I felt no fatigue, the road was good, but I was dying with thirst. I imagined I had made a charming discovery on distinguishing in a thicket a kind of spherical cucumber ; it is but insipid, said I to myself, but it is aqueous and refreshing. I ran to the spot, gathered, and even bit one. The electric shock is not more sudden of effect : I thought myself poisoned ; in this dry and spongy fruit I found a hot and corrosive bitterness, which increased my thirst in the proportion as sulphur and bitumen would the flames of a burning pyre. Foolish botanist, then said I to myself, did you then imagine that all *coloquintidas* must necessarily be small ? This will teach you more carefully to study the different species. The size of the fruit, equal to that of our melons, and its round figure completely deluded me ; I therefore sought some other assuager of thirst. I saw some fruit of a certain cactus, called by the Spaniards *tunas* ; it is a species of *opuntia* found in St. Domingo, with red fruit. I took two or three of these figs, peeled and ate them. These greatly lessened my thirst, when I plucked others, and devoured near thirty ; but failing possibly of peeling them with due care, their burning cottony covering occasioned my tongue and lips to swell immediately, and I found myself on the point of suffocation. I still continued my journey, and met with no one. At times the leaves of trees agitated by zephyrs, struck the ear in the manner of distant waterfalls, or some murmuring brook : while listening to this pleasing promise the winds stilled into calm ; I no longer heard any thing, and almost resigned myself to despair.

In the mean time, the god of day, already four-and-twenty degrees above the horizon, darted his unsheltered beams upon me, a thousand times reflected by the burning plain beneath. I had merely a very light sea breeze at my back ; before an immense plain eighty leagues deep, presented to my view at the extremity nothing but lofty mountains : it seemed as if all nature conspired against me. I thought at one instant I plainly distinguished the roof of a hut. I quickened my steps, but after going three quarters of a league in the direction I saw it, I found myself in a little thicket, where, no longer perceiving the object, I fancied myself mistaken, and for once lost all patience. I halted, and looking carefully round a bombax, to see if there were neither a serpent nor musquitos to dread, I laid down under its shade, and slept nearly two hours. The sun had now passed its meridian, I rose, and sad enough, continued my journey ; but oh ! unlooked-for happiness, I had scarcely proceeded a quarter of a league before I distinctly saw the house I thought I had seen before. It was still about six hundred yards from me on the summit of a hillock, near the river Jamapa ; to reach it took but an instant, and enchanted with the sight of that beautiful river, I would fain have leapt into its waves. I entered the cabin about three in the afternoon. The host was a shepherd : him I conjured, as well as the hostess, *por amor de Dios* to give me drink and food : this they did with all diligence. I drank successively a quart of water, two quarts of milk, and as many of lemonade, and devoured the wing and thigh of a turkey, with three fresh-laid eggs, before I answered the least question. The shepherd asked me if I was a Spaniard (*Castillano*). I answered, I was a physician of Catalonia. I judged as much, said he, from your gait ; you Europeans take longer strides than we Creols.

Thus

Thus do those who are most nearly connected with nature observe her with keenest eye. As the shepherd seemed to me rather curious and discerning, I paid him, and complaining of a dreadful head-ach, threw myself on a hurdle made of branches, where I fell asleep. Four reals which I gave my host earned me at least four thousand benedictions.

I slept so tranquilly that I did not wake until three the next morning. The morning broke on the world here only at four, still I did not fail pursuing my journey, without taking leave of my hosts, for fear of awakening them.

I descended the hill and reached the side of the river: at first I was under some embarrassment respecting the means of crossing it; but recollecting that it is but a branch of the same river which flows by Medelina, and that it is not deep, I was on the point of undressing myself to wade over, when about twenty fathoms higher up I distinguished a flat-bottomed canoe: I jumped into it, and seizing a boat-hook, pushed over in an instant to the other side: in no part did I find more than three feet water, though the river was two hundred yards broad. By jumping on shore I awakened a dog, which began to bark, and soon after I noticed a negro looking at me over a hedge. I asked him what was the fare of the ferry? A real was his reply. Then give it me, said I, jokingly, for having done your work for you: he at this was content to receive nothing, though I left him his fare.

At this spot I avoided the first danger I had to encounter. The right passage, as I learnt on my return, is lower down, and there a corps de garde is stationed, and a picquet of pikemen: my ignorance of the right road thus freed me from many interrogatories.

After passing this river I had no other to cross for sixteen leagues. I tripped along lightly by narrow but good and easy paths: for the space of six leagues I saw not a single human being, and should willingly have fancied myself for an instant the only one in nature, but for an immense number of rabbits, far from wild, that gambolled in my pathway. Few deserts are seen equally beautiful: more than half the ground consists of an excellent staple of loamy earth, yellow, or black, and well adapted to cultivation, the remainder of Savannahs. At six in the morning I heard turkeys on my right, which made me imagine myself near some dwelling. About seven, I saw a dozen of them spring forth from some withered herbage before me, and fly away with a terrible noise: their flight was so rapid, and so long continued, that I was satisfied of their being wild turkeys. A quarter of an hour after, two others ran from the ground about a hundred steps from me, and afterwards, three more from my left; circumstances which convinced me of their being an Indian production, or at least of their having become naturalized in the country, and shook off the domestic yoke.

By nine in the morning I found myself within reach of what is called a rancho, (a sort of canteen.) Here I found an old, curious, and impudent negress, but neither bread, nor meat, nor eggs, nor brandy: I was fain to be content with a dish of hard beans, badly stewed, and a morsel of bread I had brought with me from Vera Cruz. Happy precaution! I made myself some punch with taffia, and afterwards took three hours rest on a frame of bamboos in shape of a bedstead.

At one in the afternoon I continued my journey. The sky was overclouded, and a brisk wind blew. In the morning I had crossed five arroyos, or torrent-beds, and in the afternoon passed again twelve others. Nothing can be conceived more fatiguing and unpleasant than these passes, owing to the trunks of trees, blocks of stone, and monstrous pebbles, with which they are strewed. I was indeed in a slight degree indemnified by the variety of the plants I found in them. I saw a mimosa perfectly

similar in leaf and port to the pomegranate-tree, yucas sixty feet high, ferns of very singular kinds, an arum with an upright but low stem, and a palmated-pinnatifide leaf, a plant of great beauty, but so large that a root would weigh ten pounds; polyanthi, amaryllides, &c. I found among these torrent-beds likewise several wild horses, but very rarely any water.

At length I reached mount Calabaça by five in the evening, much fatigued. The apprehension of losing my way, and of not readily finding any other resting-place, made me determine on halting here. I expected to have found it a village: it was but a rancho or mess-rooms, round which horses, horned and other cattle, were reared, and nothing but maize was sown, which serves for food as well to the cattle as their guardians. These ranchos are composed of three or four wretched huts: the demesne dependent on them is sometimes from ten to twenty-five square leagues, in which were about a hundred horses, three or four hundred sheep, and a few hundred cows: this rancho was extensive, the farmer, a Spaniard, or at least of mixed breed, was about sixty years of age, of handsome figure, civil, but grave, and of rather, as he seemed to me, a harsh character. I accosted him, and entreated shelter: he granted my request, admonishing me beforehand that he kept no inn, and had neither bread, nor meat, nor wine, nor brandy, but to what he had I was heartily welcome. I begged of him half a dozen eggs, which I ate with tordillas. These tordillas are cakes made of maize, first boiled in water, into which a handful of lime is cast to soften the exterior skin: the skin is afterwards washed off, and the peeled maize is crufted with a cylindrical stone, by rolling it over a flat one eighteen inches long by ten broad: after this first process, it is kneaded with the hand, and rounded and flattened to the thickness of about four lines: it is then baked on a stone or iron plate, heated for the purpose, and turned, that both sides may be properly baked: in two minutes the cake is made. It is always an insipid food, but very stomachic, never causes indigestion, and at no time occasioned me any inconvenience. In a family consisting of two women and five or six men, the former are constantly employed, morning and night, in preparing tordillas: five or six are requisite for one person at each meal, and they are constantly eaten new.

My host, who appeared to me to be an old soldier, and who, as I afterwards learnt, was really one of those pikemen whom I so much dreaded, seemed a wily old fox, at least by the questions he put to me; but as I had undoubtedly every resemblance of a physician, he could but give me credit for my tale. Notwithstanding this he pertinaciously refused me a horse for the next day, for I thought myself now far enough from Vera Cruz to venture this indulgence: I was however forced to forego it. I offered to pay him for his supper, but he refused to take any recompence. Upon this I gave four reals to his wife or mistress; for though he had a number of children I could not learn from him whether or no he was married. My liberality earned me for the night the enjoyment of an old cloak, which had once been blue, but which from service had become grey. In this I wrapped myself, and laid me down on a mat on the floor of a neighbouring penthouse: but for this kindness I risked to have died of cold, for scarcely had I left the door of the hut before one of those dreadful storms of rain fell which are termed at St. Domingo avelasses, and of which the drops are as large, and fall with as loud a sound as the most formidable hail-stones of Europe. The noise they made was frightful: the rain driven by the wind penetrated the branches and leaves which covered the penthouse, and ran through as from so many spouts: in an instant the whole of the interior was drenched: one would have thought a water-spout had burst over the place. The weather caused me the most mournful reflections. In a country intersected by torrents and rivers, if this storm should only be the precursor

of others, how should I be able to travel, especially on my return with the booty I hoped to gain? Could even the best horse in the world carry me safe among the rocks and trees which are almost always brought down the ravines after such storms? These reflections were very far from comfortable; but having planned every thing for the best, I had no other reliance than on Providence: with this conclusion I covered my head with the cloak, and enjoyed a profound sleep till four the next morning.

The melancholy ideas which had afflicted me the evening before vanished with the shades of night: a clear and serene sky, a cool morning, the prospect of the mountains of Orissava, from which I was now but twenty leagues distant: their branch, which advanced forward about eight leagues like a steep and inaccessible rampart along the whole contour of the plain, delighted me, and instilled fresh courage in my breast. From Vera Cruz I constantly advanced south-west: here the mountains in front of the plain, having no opening on the west, the road bends several points towards the south.

It is worthy of remark, that throughout this vast plain the course of the torrents and rivers is from north-west to south-east, and that their beds, though in a country so flat as to seem a level, have considerable depth: this singularity arises no doubt from their descending uniformly from the mountains of Orissava, and from the immense volumes of water proceeding from the melted snow, and the hot springs of these mountains having, by their weight and impulse, gradually excavated the country to a vast distance, and thus, in the lapse of time, worked a slope for themselves, which they do not seem to have possessed at an earlier period.

Though the rain was dreadfully violent during the night, such was the parched state of these sandy cantons, that the ground was moistened scarcely two inches below the surface. On this day's journey I found oaks with ovate leaves slightly dentated; a white amaryllis, which I brought back with me; a polyanthus, whose rasped root is used by the Indians in lieu of soap; three large flocks of sheep; twenty coveys of partridges, not so large as quails, and rabbits out of number: I had to pass, moreover, no less than sixteen arroyos. The soil appeared to me generally more fertile and of better staple than that observed the day before; still is it not the less uncultivated, and without inhabitants.

By eleven in the morning I had travelled eight leagues without eating, and without drinking any thing but a little lemonade, which I procured of two Indians who were building a hut, and who were the only rational beings I met with. I now found myself at the foot of the first chain of mountains, but the steep and almost perpendicular declivity before me, the projecting rocks of which were discernable through the hanging woods, formed only a portion of the obstacles which nature, not satisfied with this bulwark, has opposed to the entrance into Mexico. In advance of these steeps, and at the very foot of them, she has formed an enormous fosse, at the bottom of which runs a river ten fathoms broad, of such rapid, such violent current that it has dug itself a bed, through ten strata of different kinds of stone, of eighty feet deep; over this bed it winds its course like a serpent amid the sands, almost without a murmur, but foaming, and with the rapidity of lightening: on throwing a pebble into the river, I judged the depth of it to be fifteen feet: when from a wretched bridge made of half rotten bavons, by which this river is crossed, one looks down on the torrent below, the head turns dizzy. At the extremity of this bridge is a rock which commands and covers it in such manner that ten men might keep as many regiments in check: in the rock an angular and zig-zag passage is cut, through which the road lies, and in which no

more than two persons can march a-breast ; add to this, a few pieces of artillery placed on the summit could thence destroy an entire army venturing to force a passage.

Half a league lower down is another river, which empties itself into this, called the Rio de la Punta, or of the Point : this is not so deeply incased as the one it joins. I found at the end of the bridge by which it is passed a Spaniard who received toll ; as he had neither bread nor wine, I resolved on proceeding to dine at San Lorenzo, though the distance was full three leagues. The toll-gatherer warned me, *de las aguas*, (the coming rain,) I heeded him not, but had cause to repent : a heavy shower quickly brought me back, and subjected me to his jeers. On its ceasing I resumed my road, and soon reached some sugar grounds, which seemed to me forsaken, notwithstanding the buildings were capacious, the plantations very extensive, and the canes fifteen feet high. At length I came to a ravine, the bed of a torrent, a hundred and fifty fathoms broad, and forty feet deep. I fancied before me the enormous skeleton of some extinct river, if such an expression be permitted, the only one I could fancy adequate to depicting the gigantic ideas enforced on my imagination by the singular spectacle of the rocks, the immense trunks of trees, the enormous stones of all colours, rounded by long and violent friction, which were piled on each other in confusion in the chasm. What a horrid spectacle, but yet how magnificent, how terrible ! All these masses, now motionless, and surrounded by deepest silence, had erst been driven with resistless impetuosity, had experienced, amid the noise of horrid crash and dashing foam, an active change of station : how mightily powerful then must have been the vast and inconceivable volume of water, that thus could have made the sport of weights and bulks like these ! Scarcely, though the bed was dry, was I enabled to pass these obstructions to my way. Picture to yourself, reader, this chasm, winding, vast, and deep, enclosed on either side by a forest of trees, equally lofty, still, and sombre, and ask, what painter could venture the display of scenes so wild and monstrous ? O Vernet ! 'tis thou alone perhaps wouldst not in vain have dared.

Here it was I saw many pairs of those beautiful parrots of the Brazils, with pointed tails, called araracaunas ; of the Amazons, with green plumage, mixed with the yellow of the jonquil, and of the size of the Guinea parrot ; and a bird of prey, black and white, with red feathers round the beak, the size of our buzzard.

A most excellent staple, in addition, presented me on every side a vegetation equally abundant and varied ; but, alas ! it was impossible for me to load myself with such a mass of treasure ; I therefore made the best of my way, with my eyes cast down, and solicitous almost of avoiding the sight of objects I could not choose but sigh for.

At length I arrived, excessively fatigued, at San Lorenzo. The inn here is for a Spanish inn a charming one, and to me was truly so. The mistress was civil, and I was served with diligence. I had four fresh eggs, a chicken, and some excellent bread, together with some tent wine. Immediately after I departed, resolved on reaching Villa Cordova that day, but scarcely had I left the church-yard, where I had been to examine at leisure its plumeriæ, (frangipaniers) with purple coloured, rosy, and yellow flowers, and thirty feet high, before the rain again began to fall. I took shelter under an Indian hut, when at the instant a negro passed me with three horses, the same I had before seen at La Punta : I did not venture to accost the negro before the Spaniard, but with Indians I was rendered bold by necessity. I asked him to let me one of his horses, and he agreed to conduct me as far as to his village, two leagues beyond, but the name of which I forget. I jumped on horseback, upon this, without either boots, spur, or cloak : the negro, in order to shelter me from the rain, contrived to cover my head

head with a mat, which hung down before and behind like a Dalmatian mantle: never was Robinson Crusoe more grotesquely apparelled.

We had got, at a pretty brisk pace, a league on our way, when my guide pointed out to me the garita, or guard-house of the custom officers, by the side of the road. I trembled on remembrance that I had no passport: the guards had the right to stop me, but we were now too near to seek to avoid them; I therefore conceived I could do no better than pretend to be asleep on my horse, and even half dead, in case they should attempt to force me to alight or speak. How over-charitable my opinion of Spanish centries to nourish such disquiet! The rain prevented these vigilant gentry from leaving their shelter, and even, no doubt, from seeing us; and we reached the village by night, without any accident. In the shop of a grocer I met with bread, wine, eggs, and chocolate, and went to rest, after agreeing with the negro to conduct me in the morning to the city of Cordova for thirteen reals.

I slept badly: at two in the morning I ran to the hut of my negro to awaken him, and hasten our departure; but in vain, we were not able to set off before four.

We entered the gorge of the first chain of mountains through an immense forest. It seems the Spaniards, at one epoch, deemed this passage of importance; for at every league we discerned the ruins of forts, redoubts, intrenchments, and other fortifications, more or less dilapidated, by which the gorge had once been defended. This gorge is about a hundred fathoms in breadth. Between San Lorenzo and the city of Cordova I reckoned seven of these forts, all of them built of stone, but not any of them in an integral state: in lieu of these it is, and near them, that some guard-houses, called by the Spaniards garitas, have been constructed. Never did I look upon these guard-houses against smuggling in such an odious light, or as such a shocking proof of the arbitrariness of power as in the New World. In a country where with difficulty the most absolute necessities of life can be obtained, is it tolerable, that by the exertion of atrocious barbarity, an indigenous plant, which nature strews beneath the very footsteps of the inhabitants for their comfort, should become so far a scourge to them, that they are not at liberty, without the liveliest dread, to stupify themselves by its narcotic quality, and steep in oblivion the memory of their sufferings!

The soil we travelled over consisted of a deep and inexhaustible red earth, singularly fertile. I saw again another sugar plantation, and canes of monstrous size, beyond immense fields of tobacco: thus the most productive ground in nature is in the hands of a lazy people, who merely cultivate a plant which can give no nourishment to its cultivator.

Four leagues brought us to the Villa de Cordova. Domes, towers, numerous steeples, announced a large city, and gave me great apprehension. A fresh garita at the gates of the city! Might there not be some information given respecting me? Might not a troop of pikemen be waiting to put me into irons? Alone, on foot, I might have avoided the town, as I intended; but to act thus in the face of an enemy, to implant suspicion in the mind of my guide, or even to make him a confidant, him, an African, an individual of a nation the most perfidious, one of the subjects of the King of Spain, the most devoted to his service. This could never enter my head: to send him back was by no means a safer plan; on the contrary, I treated him with great kindness. I therefore resolutely entered the city, but I deemed it right to play the same part I had done at the last village. How little I knew of the Spaniards! they are by no means so vigilant or active: they never enquired for my portmanteau, nor subjected me to the least scrutiny.

I alighted

I alighted at an inn in the suburbs, where I fell suddenly ill. I laid me down to rest, and had a soup made ready for me. I slept till two o'clock, and arose radically cured. After eating an indifferent soup, made with excellent mutton, I paid my reckoning, and enquiring for the residence of the Alcade-Mayor, I pretended to direct my steps towards it, and traversed the whole length of the city without meeting any other than Indians or Negroes.

The city of Cordova may be a thousand fathoms square. Although an ancient town, the islets are still, at least the greater part of them, gardens excepted, in the centre of the city, where is a large square, equal in size to the place Vendôme, at Paris, with three sides of Gothic or Moorish arcades, ornamented with a tasty fountain, which jets forth a prodigious volume of exquisite water: the fourth side is occupied by the great church: the streets are paved, broad, and rectilinear: three-fourths of the houses are of stone, but the inhabitants are poor. Whenever nature is peculiarly bounteous to man, there is man constantly least attentive to nature: accustomed to her boons, he contracts a listless lazy habit, which prevents him from laying up store against her vicissitudes. The city is built on a raised plain, formed by a long hill, between two valleys, each of them bounded by lofty mountains, which form the pass into Mexico. The opening between the mountains may be about a league wide, but no where is such rich and beautiful vegetation apparent; no where a field for culture which would be so luxuriantly repaid as on this long plain. The soil here is a red loam, from ten to fifteen feet deep. In the gardens, cherry-trees, apples, peaches, and apricots, are intermingled with sapotiliers and orange trees, thus combining the fruits of both hemispheres. In the hedges are elders and ash trees, with a sort of arborecent tegetes or convolvulus, the seed of which I could not procure; and a second kind of this plant with bell shaped flowers, which, eight inches in length by a breadth of three, are pendent, the margin terminating in long laciniae.

The quantity of rain that fell at noon was considerable, and the road was very slippery; still, in order to avoid all interrogations, I determined on setting off: the most difficult point was to find the road to Orizava, seven leagues distant: I followed one at all risk till I reached the extremity of the suburbs, where I met some Indians who put me in the right way, from which I had deviated about a hundred steps.

After an hour's travelling it began again to rain. At this instant I met a train of more than two hundred mules: their loading had been deposited under tents, and as for the mules themselves they remained quietly feeding in the high road, which is constantly a space two hundred yards broad, covered with turf of perpetual growth, but without any ruts, or tracks of carriages, as there are none used in the whole distance between Vera Cruz and Tecuacan. I was obliged to enter an Indian cabin, where I drank a glass of pine apple water, a beverage, if well made, equally pleasant with lemonade: for this I paid a real, and the rain ceasing, resumed my journey.

Two leagues thence I descended a deep ravine, in which I perceived a very solid stone building, without any roof, and long deserted; but whether it had been a citadel, a temple, or a private house, I was unable to ascertain, owing to the trees and herbage with which it was covered, and which concealed the plan of it. I merely remarked that the walls, still twenty feet high, were three feet in thickness: the windows resembled those of our ancient churches; but of what utility a church in this position, where not the smallest vestige of a village could be seen? It is therefore more probable, it was originally some fort intended to defend a bridge, over a small but very rapid river, which runs by its walls: still, for this purpose the site could not have been worse chosen, for by ascending or descending the river, the fort would have easily been avoided;

avoided ; and it is, moreover, commanded by the summit of the hill, on the slope of which it is constructed.

A few paces distant are seven or eight huts, near another river, which like this has its course from the north-west : in the ravine in which it run were some elders and ash trees of singular beauty. A league beyond, on the left, and at a hundred paces from the high road, I saw four Mexican monuments, forming a quadrangle : each consisted of a pyramid about twelve yards high, with a base of twenty. The soil here was excellent, yet, notwithstanding, destitute of cultivation, if a little tobacco be excepted. As for the pastures they were so exuberantly clothed, that on a plot of about a square league, I counted no less than eleven flocks of sheep, each consisting of six hundred.

Night was now drawing on, when fortunately I met an Indian, whose directions preserved me in the right road to Orissava.

Thanks to the rain and the shades of night, I was not stopt either at the garita of the city, or at another which I passed on an eminence near the ravine.

I was much fatigued with a march of eight leagues, through the rain, and over a bad road. I entered three inns in succession, but could meet with refuge in neither, their hosts objecting to receive me, and recommending me as a stranger to the *casa reale*, a kind of hospital for travellers, the name of which, however respectable, was repugnant to my feelings ; so much does ignorance at times give formidable shape to names ! At length I entered a fourth inn, called *la casa grande* : the front of it was a grocer's shop : within was a vast court, surrounded by arcades, which served as a corridor from top to bottom, and four sides of building ; the *casero* introduced me at first into a room, bestrewed with the dung of the poultry which roosted in it. I looked at him indignantly, with my stick raised * and ready to strike him, in case of his not shewing me some other apartment. Though less filthy, the chamber he gave me was nowise better furnished : a bed-frame of bambo, a table, a wretched seat, with one of its legs rotten, a door-way similar to that of a citadel, and the rusty hinges of which would not admit its closing ; such was the lodging I had to share with a posse of flapping bats : for supper I had four eggs, a dish of stewed beans, two Spanish radishes, and half a dozen lettuce leaves ; as for bread and wine I was obliged to seek them myself at the shop. Such an expenditure made me be considered of consequence, and for two reals I obtained a mattrafs : my supper cost me four.

At dawn next day, I pondered on the means of learning distinctly the route and distance to Guaxaca. After long meditation I entered a convent of Carmelites, where I begged to speak with the prior : I was no doubt thought to assume above my sphere in such a request, and the sub-prior came to me. Judging from his round and jolly countenance, I deemed him a person in whom I might confide. I therefore told him, as in secret, that being a physician and botanist, my occupation was the study of natural history and plants ; that for three years I had been on my travels in view of perfecting myself in this branch of science ; that during a tempest I had made a vow to go on foot to Nfra. Snra. de la Soledad, in Guaxaca, which till now I had faithfully executed, but that, feeling myself exhausted with fatigue, and pressed for time in order to return for embarkation, I was solicitous of learning whether such a favorable interpretation of my vow could be admitted, as would allow my completing the residue of my pilgrimage on foot, in presenting, as was but reasonable, for the indulgence of deviating from the letter of my vow, certain pious offerings and alms. After a learned discussion on this

* It is fit I should remark that no respectable tradesman, nor any one in easy circumstances, vouchsafes to keep an inn ; inns are consequently let at so much per day to a *casero* ; a description of men regarded in a meaner light than our footmen, and who may be roughly treated with impunity.

point, my Carmelite was of opinion that I certainly might, by means of prayers and alms, acquit myself towards our Lady of the Solitude: taking him at his word, I drew from my purse four medios d'oro *, and begged of him to take upon himself the offering I wished to make: this he refused, affirming the sum to be thrice too large. In vain did I insist: I could not prevail on him to accept any thing, which not a little disconcerted me, as I hoped by dint of bribery to obtain from him the information which I needed; nevertheless I did not lose all hope from the civility he shewed me: he even presented me to four other fathers, shewed me the house, the garden, and was in raptures at the description I afforded him of different plants, of which the community was wholly ignorant. At length I was on the point of losing my sub-prior, when I bethought of inquiring whether there was not a convent of Carmelites at Guaxaca, and how far that city might be distant: this time my good monk fell into the snare. Anxious to appear well informed on what I enquired, he afforded me an itinerary so minutely detailed, league by league, and village after village, that the general of an army might have trusted to it for the plan of a march, as I had full means afterwards of ascertaining.

Highly charmed, after a route of forty leagues, in which I had, as it were, been obliged to feel my way, at meeting with a perfect and unsuspected guide, I was preparing to take my leave, when the brethren obligingly pressed me to take a survey of the upper apartments of their house; hence it was that I could but admire the delightful situation of Orissava. This city is about three thousand yards long, by a thousand in breadth; the streets, spacious, clean, and well paved. Excellent water, pure as crystal, is found in every quarter, but the cool proceeding thence gives such a spur to vegetation, that, spite of every precaution, the pavement is overspread with herbage, nay, even the houses though of stone are covered with moss, evergreens, and ferns of every species: its population is 3000 whites and 1500 negroes or Indians: its manufactures consist of some tanneries and coarse cloths. This is the entrepôt for the traffic between Vera Cruz and the cold countries: here the caravans of mules are wont to rest and sojourn a while; and here the clerks of different houses fix their prices on the articles brought from the interior and from Europe. The city stands in a valley a league wide. The country about enjoys the advantage of yielding the fruits of Europe by the side of those of America. The air is mild yet lively, and the temperature enchanting. At nine in the morning, the thermometer of Bourbon denotes 12° above the freezing point. The city is surrounded by insulated mountains, which leave between them so many little gorges or openings: the summits of these mountains present the effect of a palisade of pyramids covered with forests of the liveliest verdure, delighting while they ease the eye: their angular points resemble so many pines, while above them, proudly eminent, rises the volcano of Orissava, clad in perpetual snow, and presenting at once, in conjunction with the minor mountains, the singular contrast of boreal winter with the summer's grateful garb. Let the reader figure to himself an immense sugar-loaf, its apex obliquely truncated towards the city, and evincing a proof that, when it burnt, the ignited eruption rolled towards the plain of Vera Cruz, and he will have the image of the volcano of Orissava. The fact of the eruption of the lava in the direction assumed, is confirmed by the pumices found by me on the very margin of the Gulf of Mexico, in the neighbourhood of Vera Cruz, a fact the more surprising when it is considered the distance is not less than five and thirty leagues from the city of Orissava, a city which assuredly was not founded previous to the extinction of the

* Sterling 7l. 12s.

volcano, which seems even now to threaten the city. When in the morning the plain was still enveloped with the darkness of night, I saw, and with sentiments of admiration and delight, the towering summit of this lofty mountain, shining like silver, but silver gilt with the saffron beam of day.

The convent of the Carmelites built with a magnificence, truly barbarous, possesses in its massive structure somewhat noble and striking: internally it is lively, very clean, and kept in excellent order. Paintings, in the most extravagant stile, are lavished on every part, but their bright colouring pleases the eye: the church, as usual, is gilt in ridiculous profusion; but in the sanctuary, worthy of remark, is a very extraordinary picture, representing the Assumption of the Virgin: Mary is seen, still prostrate, but in a superb chariot with six wheels: two bishops dressed in copes and mitres, hold the naves of the wheels in one hand, and a flambeau in the other: six others are mounted behind on the footman's stand: the trainers are twelve cherubims with blue wings, and in Roman dresses, a helmet on the head with feathers, and their hair floating in the manner of dancers in a serious opera, and they are harnessed to the car, with traces like our cannoneers, to the gun. Elias on the box, with a lily in his hand held like a whip, acts as coachman; and his disciple Elijah, on horseback, as postillion.

After having thus surveyed the whole of the convent of the Carmelites, I departed loaded with civility; when in the middle of the street, a new incident, which I had not foreseen, disturbed me an instant: I knew every stage on my road by heart, and all but the most essential matter, the gate by which I had to leave the city: I ventured to enquire, and a rogue of a shopkeeper directed me opposite to the right, I had in consequence to retrace my steps, and on return, met my gentleman, who merely laughed at me, but a frowning brow and an angry look I darted upon him, changed his countenance, and made him pale as death. I at length passed the right gate into the road, over a bridge that crossed a small river, which bathes the exterior of the city: a very large street, which serves as a suburb, led me to the barrier at the foot of another bridge. This pass was guarded by customs officers; one of them enquired whither I was going: I told him to collect plants; and that I lodged at the Carmelite convent, from which I was shortly about to go to Vera Cruz. In turn, I put many questions to him; and the fellow conceived himself highly honoured at having in his power to give information to a foreign physician so learned as myself. The chief of the officers then took me aside, into a room well furnished with spears, pistols, and swords; and now, thought I to myself, you are caged; I was however quit for a moment's dread, and a fight but little agreeable indeed, though without danger: the spectacle displayed, was the consequence of a malady said to have originated in the country where I was, and with which our chief was dreadfully affected: I prescribed to him a mode of treatment; after which, dying with impatience to resume my journey, I left him, in spite of all his offers of service, and his invitation to take chocolate.

I left Orizava satisfied with having some claim of service from a man whom I should else have reason to fear on my return. I marched on in high spirits, and mended my pace in view of gaining the mountain before me, and even of climbing it, if possible, to enjoy the beautiful prospect I promised myself from its summit; but when I had travelled about four leagues, I found myself tired, and in need of nourishment.

I resolved on entering an Indian cottage on the road, where I was well received, and treated with bread and eggs, all that can well be expected from this wretched class of men: but what struck and charmed me far beyond my meal, was the perfect beauty of the mistress of the cottage: I looked for faultiness in her, but, almost naked as she was, having nothing on but a furbelowed muslin petticoat, trimmed with a rose-

coloured cord, and a shift which left her shoulders bare, the nicest scrutiny discovered no defect, her whole figure emulating in symmetry the regularity of her features. I told her she was very handsome: it seemed to please her and two old women who were present; the one her mother, and the other her aunt, laughed heartily on the occasion. I put many questions to her; and learnt she was married and had children; these circumstances but rendered her the more interesting, and her charms had even a disorderly effect on my senses. I ventured to draw forth a piece of gold; but recollecting myself: wretch! said I, what wouldst thou? Is such the object of thy toil? In a foreign country, friendless, and without support, environed by myriads of dangers still ever springing beneath your feet, wouldst thou lose thyself? wouldst yield to the enervations of voluptuousness? Madman away! With these self-reproofs I left the cottage without speaking a word, or daring to take another glance, and dragged myself, sighing along. When I had journeyed half a league, I found myself better: a thousand different ideas came to my assistance and consolation, and I found myself quite refreshed, proving what is said by La Bruyere, that "nothing more enlivens the spirits than the reflection of avoiding a folly."

Despight of the bad roads, I journeyed on a league and a half, and found myself opposite to Aquulingo, where the dedication of a belfry was celebrating: I did not choose to stop, for I could have halted only at the Casa Reale, and I had imbibed such a dread of lodgings of this kind, that I had no inclination for experiment.

I must observe that, in every village, the Casa Reale is the court in which the Alcalde sits, and justice is administered: when not appropriated to this august purpose, the Casa Reale is only a wretched caravanferai, or rather penthouse, in which travellers obtain shelter gratis. Commonly the whole furniture consists of two or three frames of bamboo for beds, a table, a seat, and a hemisphere of *crescentia* or vessel, which serves at once for pail, for piss-pot, and to drink from. An Indian is kept in guard of these precious articles, and to wait on travellers, that is to say, to fetch them whatever eatable can be found in the village for their money: this guardian is denominated a *casero*, he is also a cook; but his whole knowledge of cookery is confined to boiling an egg hard, and burning a chicken.

I travelled on, and came to about fifty Indian huts built on the road side: wavering in opinion whether or no I should stop here, or attempt to climb the mountain at the risk of being caught in the rain, I remained some time irresolute; at length fatigue, the dread of losing my way, and the more weighty dread of being thoroughly soaked, determined me, though it was yet broad day-light, to enter the last of the Indian huts which I saw on the road: it was built like the cabins of the charcoal-makers in the woods of France, but so low as prevented one standing upright.

I found here a female Indian and a little girl, busily employed in making tordilyas: they received me without ceremony, but yet with respect. They did not comprehend a single word of Spanish, nor I the least of the Mexican tongue, so that our conversation was necessarily by signs. The mother presented me a tordilya, which I took and ate, but with no appetite, giving her in return a real. I presented the little girl a packet of pins, which she accepted, and found mighty curious: immediately another tordilya was served up, covered with an egg and *chili*: the latter dish I found excellent, and paid for with another real. I saw they were preparing me still others, but I made them signs to desist.

Tordilyas have before been noticed: they form the chief food of the Indians. As for *chili* it is a Mexican sauce made of pimento and tomatas, or love-apples, pounded together in a mortar, and mixed with salt and water: it is the common sauce, and

indifferently for bread, meat, and fish, and is the most delicate ragout known to these worthy people. Those who are in easy circumstances, always keep it by them to eat their *tordilyas* with, which are without it insipid. The Indian when he has no tomatas, knowing without doubt the affinity between them and nightshade and *physalis*, or the winter-cherry, substitutes *alkekengi*, or the winter-cherry, as I frequently remarked on my way, a circumstance which put me on my guard in eating this sauce.

Night coming on, the father of the family arrived with five children, the oldest about fifteen: three others, one of which at the breast, had remained at home; thus in all eight children, the father, mother, and myself, were collected under a little roof of shingle in a hut, but fifteen feet square. The poor Indian, tired with labour, and half starved, presented a mild and benignant physiognomy: he shewed me some little attention, but overflowing with affection, he smothered his children with kisses, while the tenderest love beamed in his looks, which were constantly directed to his wife, save when from courtesy they were turned to me. He spoke a few words of Spanish, but our conversation was little. A profound silence reigned during the whole repast served up, consisting of *tordilyas* and chili: it was the stillness of delight, interrupted at intervals by the tones of a language sweet and short, and by sounds which resembled the melodious notes of the bullfinch; thus joy, tenderness, and repose awaited the worthy Indian, as compensations for his daily toil. He gained by his work but two reals, I gave him in addition two, but profit seemed to interest him little. Avarice finds rarely entrance in the heart of the child of nature, awake to the feelings of a husband and a father!

I laid down to rest, my heart full of this scene, and adverting in thought to that at my dinner, such, said I, such are the hearts in which you would have plunged ten thousand daggers by the seduction of a wife, the joy and only solace of her partner.

To these reflections a thousand insects joined their troublesome hum to drive away repose. I laid stretched on two bad sheep-skins, but the night was cold, and I had no covering, the rain even penetrated our slender roof. As therefore I could not sleep, I rose and left these good people in silence, but deeply affected with what I had observed.

The evening before I noticed near their house a bath of rather a curious construction: it was a little house eight feet long and six broad, with walls two feet in height: its roof, shaped like ours, covered with ridge tiles, overtopped a wall built of brick, and resembling that of an oven: the floor also was paved with brick: it was raised near a fountain or rivulet, and beneath its level. Within the building a fire is kindled, as in an oven to heat it: the fire is afterwards withdrawn, and the streamlet suffered to enter. After a few minutes the invalid, about to avail himself of the bath, is placed in it, feet downwards, with no means of breathing, but by the door which is about eighteen inches square; this remedy is rarely used, and only in desperate cases, as I was enabled to gather from the broken sentences and gestures of the Indian: of stoves similar to this I met with several on my way.

I have observed that on quitting the plain, the road lays through a gorge which begins at La Punta. This gorge is bounded on the south-west by Aquulingo, and suddenly by an appendage of the volcano of Orissava, which forms, as it were, a kernel, or tenant, that unites the frame of the two ranges of mountains which form the gorge in which the cities of Cordova and Orissava are situate. This kernel or tenant it was necessary I should pass to enter into Tecuacan. I had observed it attentively the day before, and noticed the road traced on its reverse. However high and steep the mountain, this road, which is very well planned, and paved even in certain parts, would be

far less laborious to traverse, were due care taken to repair the injuries to which it is subject from springs precipitated from the top of the rocks in a thousand singularly curious cascades; and from the torrents which, during heavy rains, bear every thing before them.

I was on this road by two in the morning. The atmosphere was replete with moisture, owing to the night dew and a thick fog which covered the mountain: the cold in consequence was so benumbing that I could scarcely move my fingers. I ascended rapidly, and by day-break was on the ridge of the mountain. I saw there a number of oaks, similar to those of the plain, the savin shrubs*, and arbustæ, which I took for myrtles, but which the obscurity prevented my ascertaining. I was pleasing myself with the magnificent prospect I should enjoy; the ease with which I should contemplate the volcano, and the birds-eye view I should have of the gorge I had quitted, and the plain I had to enter on the rising of day, as I ascended the mountain, but my expectations were frustrated by the fog, which did not disperse the whole day long.

I saw on my way two dealers in poultry; and farther on, two caravans of mules feeding around their encampment.

Scarcely had I gained the summit before I had to descend, for the crest of the mountain is barely ten fathoms broad. I now tripped lightly down, satisfied within myself I had nothing further to apprehend, and as much at my ease as if a thousand leagues from those whom my fears represented in pursuit of me.

I fancied myself in quite another country; and in fact nature presented a volume perfectly new to my delighted eyes, and treated them with a most superb display of plants of various genera.

Here the *geranium* †, there a species of *heliotrope* ‡, of a very curious species, no seeds of which unfortunately were ripe: beyond these *mistletoes* §, *tradas cautias* §, of very singular kinds; a species of medlar, *yucas* ¶ thirty feet high, and finally, at the bottom of the mountain, magueys, a plant which became the most predominant.

The gorge I traversed now presented a road of beautiful turf, and now a soft and even sand.

At seven in the morning I discovered a village, the huts and houses of which divided from each other by long intervals, gave me an idea of what the Spaniards call a *pueblo*, it was *clapuleo*, divided into a rectory and curacy, and about a league in length.

This spot may be reckoned the vineyard of the country; but what a vineyard!

A valley extending three leagues by half a league in breadth, is enclosed by mountains covered with some *cacti*, but chiefly with the *agave Americana* or aloes. This plant, which is indigenous, in addition, is here cultivated and multiplied *ad infinitum* by the Indians. Its leaves, three or four feet in length by a foot and a half broad, serve the inhabitants in lieu of tiles; and some cottages I have seen were very skilfully covered with them. The plant yields a beverage esteemed by this people delicious, but of which the mere appearance was sufficient to excite disgust in me: it is of a whitish colour, thick, constantly turbid, and unsusceptible of clarification. The following is the manner in which it is extracted. Previous to the aloes shooting forth its spear, the Indian, after cutting away some of the leaves in order to form a passage, on arriving at the heart of the plant, tap it to the pith in nearly the same manner as an artichoke,

* Dioecia monadelphica.

¶ Dioecia tetrandria.

† Monadelphia decandria.

§ Hexandria monogynia.

‡ Pentandria monogynia.

¶ The same class, a species of aloes.

he removes the crown of upper leaves, enclosed the one within the other, and after hollowing in the stem of the plant a cavity capable of containing two or three quarts, he places the crown on again, and leaves it. In the course of that day and the following night the sap of the plant transudes from every part of the young leaves cut off with the crown, and falls into the well below; this the next day great care is taken in emptying, and this process is repeated until the plant becomes exhausted, when it perishes: it is then hewn down, and renewed by the pipings it generally bears.

This species of aloes is sometimes so large as to measure fifteen feet in diameter: it throws out its leaves like the spears of chevaux de friz, but of far more solid structure: it occupies all the backs of the hills of Clapuleo, a talky and stony soil: the bottom is sown with barley and other corn. The morne of Port-au-Prince grows many of this species of aloes.

This forms one of the chief objects of culture at Clapuleo, which furnishes the consumption of a circuit of eighteen leagues radius. There are Indians who have constantly forty of these wells, which I could safely wager they empty every day. I am ignorant at what price this beverage is sold, but it is in great request, and I have seen it on its way in skins to every quarter round about.

I had travelled six long leagues without eating, after a very indifferent night, and but a bad supper the evening before. It was nowise astonishing therefore that I felt hungry: I enquired of the first Indian I met where the tienda was (the eating-house); but neither he, nor several others I met with in succession, understood me: at last I ventured to enter a hut, where I found two women and a young man: I made signs to them by pointing to some eggs, that I wanted food: they brought me half a dozen, which I caused to be roasted in their shell, and devoured, with four tordilyas. I afterwards for beverage made a kind of lemonade, and might have been content with this meal, but seeing my fly Indian had a fowl in the pot over the fire, well seasoned, I without ceremony asked him for a part: he gave me first one wing, then another, and afterwards a leg. These I ate entirely, to the great astonishment of the bye-standers, who thought me, no doubt, but ill qualified in purse for such an appetite. To dismiss their suspicions I took four reals from my purse, which they received with pleasure, and would have had me take the remainder of the fowl, but this I refused, as I did also a beverage made from the maguey, and called by them pulqué, as the whitish, troubled, and dirty appearance of it, inspired me with disgust. I afterwards laid me down for an hour to rest in this little hut, constructed in the same manner as the huts of our soldiers, and but ten feet long, but so clean, with every thing in so much order, that nothing can be imagined more so. These good people were simplicity personified. Their language, different from that of the Indians of Aquulfingo, is singular, and little but clucking. The only sounds distinguishable are a multitude of lya's, or l mouille's, and mute e's. The man who comprehended and spoke a few Spanish words, enquired of me how far it was from there to Castile? I answered, two thousand leagues, but here I spoke beyond his understanding. He readily conceived the numbers ten, twenty, nay a hundred, but beyond this number his ideas did not extend. He admired the knot of my cane and its handle, my watch and snuff-box, observing them with the most innocent curiosity, but without desire or anxiety to possess them.

At nine in the morning, finding myself sufficiently refreshed, I left my kind hosts. A cooling breeze, a cloudy sky, every thing promised me a pleasant journey, and I determined on sleeping beyond Tecuacan.

Scarcely

Scarcely had I gone a hundred steps before I was accosted by an Indian, who enquired of me whither I was going? I answered to Guaxaca: upon this he offered me horses, but as he had a beggarly and ideotish appearance, I paid no attention to what he said. He continued obstinately to follow me, and stopping me at the end of a street, he shewed me a horse held by a young man. His pursuing me engendered suspicion: I took him for a thief, or at best, a spy; and treated him in such manner as induced him to go his ways. I have since learnt that my suspicions of him were groundless, and that he was only one of those people called *topiths*, whose office it is to seek horses for travellers, and serve them as guides. Still, I was not sorry on learning this, that I had not taken advantage of his proffer, for he would most assuredly have conducted me on horseback, in broad day, through the streets of Tecuacan; a risk would have made me die ten thousand deaths with fear.

On leaving the pueblo, I saw a number of pretty rabbits, by no means wild, several birds of charming plumage, and the *arbol Peruano*, which yields a species of pepper.

After three leagues through beautiful vallies, in which the harvest had been reaped some days before, and where already the husbandman was employed in sowing again, I discovered from an eminence the plain of Tecuacan. Hitherto I had only travelled through the gorge leading to it: the scene which afterwards struck me was singularly delightful, but the pleasure it occasioned was lessened by the revival of my cursed fears, at the sight of a country so well peopled, and the reflection that I must necessarily travel through so large a city as Tecuacan, which I painted to myself swarming with *corps de gardes*, *alcaldes*, and *alguazils* of every description.

As it was too early to wait till night-fall, I bethought myself of the expedient of rounding the town, without entering it; in consequence, I continued my way at a quick rate, but not so quick as to be blind to the beautiful prospects around.

From the extremity of the gorge I had just traversed, on reaching the slope of the hill, is seen the vast and superb plain of Tecuacan. Its breadth is six leagues, and it extends in a south-east and north-west direction some twenty leagues beyond Jalappa, between two chains of mountains, which bound it east and west, and separate the province of Tecuacan from that of Mexico Proper. The river of Tecuacan, and generally speaking, all the waters run in the same direction for the space of fifteen leagues towards the south. The eye embraces with delight in a country covered with eternal verdure, intersected by innumerable rivers, and chequered with five or six cities, and villages, and pueblos, and habitations, without number.

This fine country, however minutely examined, does not appear to be naturally so fertile as a view of its whole announces. The plain, properly so called, is indeed very productive, and yields every grain peculiar to Europe; but the soil is of a greyish colour, abounds in clay, and requires, in order to render it fit for sowing, a long continued inundation; and when the growing crops appear to suffer from drought, it is again watered, by means of sluices contrived at its different falls with much ingenuity and care, in the banks of the river of Tecuacan: this is one of the best managed regulations I had hitherto observed in the whole country, and doubtless the population were taught in its institution by necessity, for the only compost necessary for the soil is water; and here it is distributed to all the different farms, in the same manner as it is to the sugar plantations of Santo Domingo. The lands are tilled with the plough, and they yield two crops annually, the one in May, the other in September. Corn does not rise to the same height as in the Beauce in France, but the straw stands thick, and the ear is well filled. It is trampled on by ten or a score horses, on an area in front of the
barns,

barns, to get out the grain, and the straw sells at a very high rate. By the home stalls the lands appeared to be divided into large estates; but as there are no slaves in this country, and as the small number of negroes here are free, and commonly hire themselves out at four piastres per month, every process of cultivation necessitates the employment, on the part of the proprietor, of other hands in addition to those regularly kept in his service: to obtain these he is obliged to present a request to the alcalde, mayor, who assigns him the requisite number of Indian labourers, at two reals per head per day. The alcalde of the pueblos conducts them every morning by eight o'clock to the rendezvous, always about two hundred yards out of the village, where the bailiffs of the farms meet them, and point out their work, which continues until sun-set. These bailiffs remain constantly on horseback all day long, exposed to the heat of the sun, for the purpose of overlooking their labourers.

The upper part of the plain, which comprehends the midway up the mountains sides, is susceptible of no species of culture, owing to the impossibility of furnishing water, as much as from the nature of the soil, which consists of little more than an inch of vegetable earth on a bottom of talc. Here nothing grows in fact but mimosæ, cacti, and certain shrubs which, seen at a distance, induce a conception of the soil possessing a degree of fertility.

The summit of the mountains is covered with many kinds of trees, oaks, pines, &c. But whichever way the eye is turned it constantly embraces a view of disruptions, erosions, and chasms among the mountains, visibly occasioned by violent convulsions; for the ground there seems not to be a deposit of waters, but entirely free from such accumulations. Among the innumerable species of cacti that I distinguished was especially the *cactus nobilis*, *icofandria monogynia*, Linn., *mantissa*: it does not rise more than a foot from the ground, and may be ten inches in diameter. I remarked twenty other species, which I have no where seen described, and which, unfortunately, I had no time to form a description of. In order to have brought with me all I found worthy of the school of botany, I should have needed an additional cart at every twenty leagues. I therefore continued my journey, sighing to leave behind me so vast a heap of treasures.

After crossing a division of the river, I arrived at the suburbs of Tecuacan. I saw a trellis covered with grapes, yet green: what would I not have given for ripe ones!

There I left the high road for the plain. The corn had been just reaped, and I noticed that abundance was left behind, yet green and growing, which proved to me that it does not ripen evenly, an observation which I made every where along the road.

I thus avoided the city, as far as the real bed of the river which runs through it. At this part it is six yards broad, and about three feet deep. In order to pass it, I was obliged to undress, but at the instant I was about to enter it, so prodigious a number of turtles, which I had not observed, plunged into it, that I was extremely frightened: on seeing them my apprehensions were dismissed: these turtles are no larger than the palm of the hand, of an oval shape, of a dirty mud colour, not striated, plated, nor flated, or in any degree resembling others, but even backed like land-turtles or tortoises; the sternum, which is all of a piece, is joined by an ossification, and level with the back, except the openings for the paws, the head, and the tail of the animal: the size appears to be regularly as I have stated, for though the number I saw was considerable, there was no difference.

Unfortunately I drank of the water of this river, I say unfortunately, for all the night and all the following day my lips felt as if ulcerated. I attributed this inconvenience

venience to a rash proceeding from my drinking of it when warm, and after being weakened by fatigue; but on my return, the same accident happening, and not to me alone, but to several others, I learnt that such is the common effect of its waters, which are briny, but which I had not before observed, on account of my eagerness and thirst.

I entered the extremity of a suburb, bought some bread there, and drank a glass of wine: this refreshed me; and of refreshment I had urgent need.

It was now but three in the afternoon, and I had already travelled twelve leagues; but desirous of not entering the city, I resolved to push on to San Francisco, still five leagues further.

I then journeyed E. S. E.; and the sun enlightening from behind me the beautiful plain I had in front, my prospect was exceedingly varied and enlivened.

The high road in which I travelled is twenty yards broad, and bordered with hedges of *cisalpine* and *mimosa*. On every side I distinguished nothing but spacious dwellings, lands well cultivated, or covered with crops, which were being gathered: such an afternoon would to me have been most delightful, had I not been so perfectly tired.

After three hours walk I resolved on resting, but scarcely had I stretched myself on the turf, before I felt my tendons stiffen, and my muscles swell: I rose hastily, in order not to catch cold. The sun was on the point of setting; the summit of the mountains on my left was beginning to be covered with clouds, whence lightnings flashed, and the noise of thunder proceeded. I feared being caught in the rain, and to avoid it, determined on halting at the very first inn. I enquired of a labouring negro where I should meet with one. He answered, that there was one at San Francisco, about two leagues farther, but that I might meet with shelter at a farm (*la hacienda*) of Don Joachim, the herald (*armorial*) of Castile, which he pointed out to me the distance of a quarter of a league from where I stood. I was fearful of straying from the high road, during the night, from which I had already deviated, and above all, I dreaded the rain. I therefore followed the advice of the negro, and repaired to the farm-yard. The house was well built. I found in the yard a bailiff employed in causing the corn to be gathered in, which had been trodden from the sheafs, and be fanned in the barn. Mistaking him for the owner, I explained to him my embarrassment, and claimed his hospitality, offering at the same time to pay for what I might have. He received me with politeness, and informed me he was not the master; but if I could wait till he had completed the business which engrossed his attention, he would have the pleasure of introducing me to him. I consented to wait his leisure, and entered the barn, where I stretched myself on some trusses of straw: there I gave myself up to the reflections suggested by circumstances. Here, said I, is corn, trusses of straw, a barn; here is the same mode of culture as in France; but what a difference does locality make in sentiments! There, with what pleasure should I contemplate their labours, always mingled with innocent pastimes; there, with security, might I give myself up to the contemplation of nature: should I change my site, it would ever be at pleasure, and with certainty, at a trifle of expence, of satisfying all my wants; here, in the same manner as a malefactor, a smuggler, it is requisite I should wear disguise; that I should dissimulate in order to procure for my fellow-citizens the enjoyment of a benefit which nature herself designed no less for them than this jealous nation, from whom it must be stolen; I find myself at length obliged to beg for shelter and subsistence; to be indebted to men who, not knowing me, perhaps may treat me with contumely!

These ideas, undoubtedly a presage of what was about to happen, were interrupted by the arrival of the bailiff: he conducted me instantly into the hall of the house, which,

which, properly speaking, was no other than a penthouse, while he went to speak to his master.

I saw myself immediately surrounded by a crowd of negroes and Indian servants, some in livery, others in cloaks; I felt cold, approached a stove where chocolate was boiling, and seated myself on the ground, my back to the fire, and wholly indifferent to the stupid admiration, and the brutal laughs of the servants' hall.

At length, after half an hour had passed, the bailiff made his appearance; he brought the answer of his patron, who was willing to allow me shelter, but excused himself from seeing me: indignant at such behaviour, I immediately decided on my reply: I told the bailiff that I thanked his patron; but not being of a quality to bear with indignity, nor accustomed to such uncivil treatment, I would neither sleep under his roof, nor owe the slenderest obligation to a man whose vanity felt a shock at receiving me in person; and raising my voice at the instant, and pulling from my pocket a purse of gold, I took out a piastre, and shewing it to the servants, exclaimed, "Who will earn this, by shewing me the way to San Francisco?" Twenty voices answered, "I:"—and I was only embarrassed respecting choice. I fixed on a strong and hearty negro, of good physiognomy, and took my leave of the bailiff, whom I left confused at the insult I had received; it seemed to me even that this imitation of Spanish pride was not displeasing to the whole troop of servants; and that one and all they blamed the conduct of their master.

It will readily be gathered, that my offended pride caused me to make this hasty determination, and I must confess that this weighed strong with me; but at the same time, it occurred to me that a man who could act in this ignominious manner might be capable of still greater baseness and perfidy; hence in my resolve a portion of prudence was mingled.

When I left this unwelcome abode I breathed with greater freedom, and, as if I had just escaped from some impending danger; and whether the result of my indignation, whether of the rest I had taken, I felt myself reanimated, and in a short time reached San Francisco, but not without a lowering atmosphere which threatened rain.

Then I entered the dwelling of a tradesman, as indifferent and easy as most of his countrymen. I found in the house nothing to eat save eggs and peas, but at the same time some tolerable wine, and above all valuable, two mattresses, of which I availed myself with the more willingness, from its being the first time since my departure that I had found so comfortable a lodging. I undressed myself, and after well barricading the doors of my room, slept peaceably.

The next day I left my host at four in the morning, after paying him six reals, with which he appeared satisfied: he informed me that at Sant Antonio, two leagues further, I should find horses, and instructed me how to procure them.

I travelled along, sprightly as the lark, the morning cool and refreshing, and the road good as on the preceding day. Before I arrived at Sant Antonio I had to traverse the river Tecuacan, which at this spot is ninety yards broad, its bed twelve yards deep; it was now, however, nearly dry, owing to the drainage of the sluices for watering the fields. I conjectured, from the enormous depth of the bed of this river throughout a space of five leagues from Tecuacan, that its swells must be frightful, and attributed them to the torrents of the mountains of the north-east, in which precipices are frequent; whereas in those of the north-east there are none to be seen; thus affording a conclusive proof that the heaviest rains throughout the gorge are brought by winds from the west.

By then I reached San Antonio, it was six in the morning. This is a vast *pueblo* of Indians, extending from one side of the river, the space of a league, to the first rise of hills

hills which precede the mountains ; there is but little land in culture ; the objects attended to are pimento, French beans, &c. The streets are large, and covered with a mimosa, exceedingly gummy, and of which the bark, of whatever age the tree, is constantly of a bright green. I forwarded some seeds of it to the King's garden. I took my dinner at the house of the Spaniard who keeps the shop (at the same time the inn) of the hamlet : he was a good kind of man ; he sent for topiths for me for horses : there was but one mule to be had, and while it was got ready, I visited the church in the neighbourhood. It was adorned as much as possible after the Spanish manner ; but before all the saints I noticed bouques, formed of liliacrous flowers, white and scarlet, in very pleasing clusters. I requested the vestry-keeper in vain to furnish me with some of its bulbs ; he could not comprehend what I asked of him ; and I had no leisure to extend my researches the length of seeking for the roots of them. What, however, afforded me the most delight, because it depicted naturally the simple manners of the inhabitants, was the sight of two candelabras of a singular description, one on each side of the chief altar : these were so many plantain-trees, which in the shade of the church had risen to the height of thirty feet, and nearly touched the roof : and why, thought I, should these simple, these natural gifts of heaven, seem a less suitable decoration to the temples of the Eternal, than those vases of gold and silver, displayed with such ostentation on his altars ? Must not the sight of these plantains, so valuable in their productions to man, impress more feelingly than those rich metals the benevolence and power of the Creator of all ?

On leaving the church I bestrode my mule, which was an excellent one ; and five hours brought me to San Sebastiano, seven leagues from Sant Antonio : the hire was seven reals for the master, and two for the topith, or guide, who ran before me.

However great the heat, I yet could not refrain from alighting three or four times, to collect some pieces of a talc, so beautiful, and so brilliant, as at first to be mistaken for native silver, or at least the most splendid mother of pearl.

The whole country was richly cultivated in corn ; the plants I saw, as throughout the whole of the plain, are very various ; the borders of streams yield a species of bignonia *, with yellow flowers, and leaves resembling those of the ash, bearing a similitude to the bignonia stans, except in being merely a shrub, whereas the other is a tree which rises to the height of from sixty to one hundred feet. The hedges are covered with the passiflora foetida † (passion flower), the fruit of which, small as cherries, are of the same colour ; finally, in these trees, which bearing plums of a yellow colour, and tolerably pleasant, mimic in appearance so well the pear-tree, that one might with ease be deceived ; but above all are remarkable the erect caeti, every where seen half way up the hill, of prodigious size, and a great ornament to the landscape ; cerei ‡, of eight or ten different species, their common height from thirty to forty feet on a trunk or stem rising from fifteen to sixteen feet, and five or six in circumference. From this trunk issue vertical branches, which give origin to other similar, the one supporting the other, and dividing like the branches of a chandelier, in such manner that the collective stock sometimes occupies a circular space in the air of from forty to fifty feet in diameter, and represents a kind of chandelier of a sea-green colour, and of singular beauty : all the branches, as well as the main stem, are furnished, at about ten or fifteen thumbs breadth apart, with a fascicule, covering the space of an inch, and comprising about eight or ten thorns, stronger and thicker than the largest needles ; the fruit, similar to that of the opuntia, or prickly pear, is like that defended externally

* *Didyamia angiospermia.*

† *Gynandria pentandria*

‡ *Icosandria monogynia.*

with

with thorns; in order to eat of it (for its taste is pleasant) it is necessary to wait till it opens, and the pulp, of a crimson colour, falls; the Indians then extract the pulp with a spoon fastened to a long pole, if the birds should not be beforehand with them. A vast number of birds build their nests among the branches, after the manner of our magpies. Nothing is more dangerous than the fall of the leaves of these trees: these leaves are beams twenty feet long by one broad, covered with thorns, and would infallibly kill the unfortunate traveller who should happen to be beneath them: but as they never fall, except on occasion of violent storms, or when rotten, it is easy to be prepared. This singular tree is more common than any other in this gorge, throughout a space of thirty leagues.

The pitahiaha, one of the species of cerei, is commonly of minor size; its fruit is not covered with thorns, but scales, which are the leaves of the cup of the flower; it is truly a delicious fruit, and of vast variety of flavour: it is acidulous, and has a fragrant taste like raspberries, which gives it a great superiority over the other species that have no poignancy; within it is of a purple colour, without brown, and its size is that of a small hen's egg. In order to gather it, the Indians make use of a long perch, to the end of which is fastened a basket of twisted branches, of an oval shape, open at the sides, closed only at the bottom, and the top covered with two cross-bars; they elevate the perch, and entangle the fruit in the bars, when the slightest motion disengages it from the tree, it falls into the basket, and is emptied into another; this, indeed, is the only method that can be adopted to obtain the fruit, for neither man nor beast can climb the tree.

Throughout the whole country the Indian lives on the fruit of this tree; even the young branches, when yet but half a foot long, and while the thorns are yet soft, are cooked. He makes ragouts of the buds and of the flowers before they are open; for the seeds, which are black, and covered with a hard skin, he dries them, lays them in store, and pounds them to make him bread. At Guaxaca, I saw in the market leaves of a kind of opuntia, which, long, narrow, and slender, are boiled and eaten like asparagus, with butter, oil, or lard. Thus the prudent and frugal inhabitant of these parts complying, without murmur or difficulty, with the laws of nature, draws from the native productions his means of subsistence; while the capricious European, not satisfied with the precious boons of Ceres and Pomona, or the animals which he has succeeded in naturalizing in the country, is yet anxious, at an enormous expence, for those fruits and viands with which nature here refuses to pamper his insatiable and gluttonous appetite.

The pueblo of San Sebastiano is pleasantly situate; it is in particular thickly planted with trees, and in the midst is a public square, and a casa reale. For the first time I ventured to alight at this formidable hotel, which had been represented to me in such an unfavourable light. I called immediately for horses. The alcalde, who was an Indian, happened to be intoxicated; the casero, more sober, shewed me a schedule in the house, on which the charge of travelling on every road was noted as established by royal authority: it is commonly a skilling (un escalin) a league for each beast of burthen; to the topith one, two, and sometimes three skillings are given. The roads here are excellent, and connect the neighbouring cities and hamlets.

I met here neither with wine nor bread: fortunately I had brought some bread with me from Sant Antonio, which I ate with some eggs, but for drink I was fain to content myself with water. In getting supplied with horses I had no such difficulty, for the providers of them went to loggerheads for who should furnish me.

I now set out, mounted on a most excellent horse. On leaving this place, the beautiful valley of Tecuacan begins to become narrow, and is no more than a league broad; cultivation is also more spare, the track of fertile land being of less extent; little is seen but small hills of talky soil huddled together, clogging the gorge, through which still runs the river of Tecuacan, receiving another stream about a league beyond: its banks are mostly sowed with corn or maize as far as Los Cues, after which its banks are barren declivities: however, before I reached this village, I saw a sugar plantation, the second only I had seen in culture in all my journey.

Here I distinguished canes of monstrous size and height, a mill of wretched structure, moulds a foot in height, and loaves of coarse sugar, just taken from the pans; in fine, a few negroes, who appeared to work very leisurely. Sugar-works must necessarily be very expensive in this country; as for hard and laborious works, negroes are indispensable, and as the price of a negro here is from five to six hundred piastrs. Indians who can be hired only for a month or forty days, sufficient time for other objects of culture, would not be adaptable to this, as owing to the continual change, they would not have time to learn their business; and as, moreover, they could not very often be obtained at those moments when the sugar-works most urgently require their assistance.

I arrived at Los Cues about seven in the evening: the necessity I was under of perpetually ascending and descending the hills I have mentioned, rendered the way tedious, and made rest desirable.

The village of Los Cues, seated on a steep rock, and covered with a mount, which was represented to me to have been at some period a fortress belonging to the Indians, seemed a pass which might with ease be fortified. All that would be requisite for this purpose would be to place a battery on the mount, to command the river and road. I ascended this mount to see if I could trace any vestige of a wall, but the only thing I noticed was the remains of an Indian dwelling.

On going to the casa reale, I overtook a Spaniard of good appearance, who was travelling with two horses: after exchange of salutation, he offered me some pitahahas, which I ate with much gratification. We conversed together for some time; he informed me there were robbers towards Atletta, whither I was going, but that some of them had been taken. I learnt from him also, that the topiths were by birth the alguazils of the villages, and authorized to arrest all thieves; that this, however, they rarely effected, being great cowards, except when backed by Spaniards.

At Los Cues again I was obliged to have recourse to my stock of bread, and to be satisfied with water. There is not in the village a single inn, or rather, it contains nothing to be had, except the fruit of certain trees with which it is shaded. This shade, combined with the cool of a rivulet, which trickles through the town, gives it a pleasing appearance, that, without these recommendations, it would fail to possess.

Here also I was obliged to pass the night, on a sofa of bamboos; but notwithstanding the hardness of my pallet, my slumber was sound.

At three in the morning I awakened my topith, and set off for Aquitepec, after giving my horse a bundle of sacates. This caution often seemed to me necessary, either on account of the avarice of the owners, or the knavery of their servants.

On the road, at the crest of a hill which commanded the highway we travelled, I perceived some men, who seemed as if concealing themselves behind bushes. The relation I had of the existence of robbers in this part now occurred to me, and I made preparation to defend myself with my knife, the only weapon I had; but on nearing the spot,

spot, we saw the supposed thieves were only a poor Indian and his son, with poles and baskets, gathering pitahias.

As we set off early we reached Aquietepec by ten o'clock. At three leagues on this side of it, the gorge of Tecuacan is but a hundred toises broad; at the village itself it diminishes to the breadth of the Rio Grande, the name of the river of Tecuacan, which previously has received the contribution of another; at this place it has a rapid course over very bulky round pebbles, which render it highly difficult for a horse to pass when there is any water in the river, as the horse, unable to fix his feet with any security, risks being carried away with the current: we were to the girths in water, but arrived at the opposite bank without any accident.

Aquietepec, built on the back of the north-eastern mountain, is a pretty considerable hamlet, surrounded by a number of cocoa-trees, sironelliers, zapotes, &c. A copious rivulet washes all its streets, and diffuses a delightful cool to the mild and tranquil inhabitants; for here, as in every other part on my journey, mildness and tranquillity are the characteristics of the Indians.

Generally they are stout and well made; the women are tolerably fair, and have pleasing, nay mostly handsome features. I did not see a single individual either distorted in person, or marked with the small pox. They do not seem destitute of industry, but they neither possess the liberty nor means of putting their talents to use: still the Spanish mob (for persons of any knowledge are far from entertaining such an opinion) imagine they possess wealth, and conceal their treasures, and in consequence of this rooted and popular belief, they are subject to continual vexations, notwithstanding the positive edicts in their favour issued by the Sovereign; but again, how silly stupid is the obstinate persistence of the people, in maintaining so wild a fancy! When a person has gold, will he not purchase with it the first objects of necessity? will he not seek for more to multiply his means of enjoyment, and to possess some property which he may transmit to his children? Such is the constant bias of the human mind: cupidity indeed may induce a miser, who prefers to the pleasure of enjoying and diffusing the means of happiness the base and disgraceful employ of hoarding; cupidity, I say, may induce such a being to hide his wealth, and he may succeed in concealing it from every eye; but to suppose a whole people would subject themselves to a thousand privations while in possession of treasures which would afford them every enjoyment; that they should yet roll in wealth where not the slightest trace of it is visible, and where so many watchful eyes interested in detecting such a fact have never been successful, however well they might be disposed to deceive their cruel oppressors, this is a charge against them which never can be admitted.

By what happened to me at Aquietepec, a judgment may be formed of the extreme poverty of the inhabitants of that pueblo: on my arrival I asked for horses, which were immediately brought; but when about to pay in advance, as is usual, I found I had no silver: upon this I presented a *medio d'oro*, but neither the master of the horses, nor any one in the village, could give me change for it. Much embarrassed, I repaired to the alcalde (a very civil Indian, as all are to whom the Spaniards entrust this charge), and entreated him to give me small coin for my gold, which I shewed him; but he protested *por dios, por la madre de Dios, por todos los Santos*, that he could not, he even prostrated himself at my feet, and implored me to believe him: his astonishment, and that exhibited by his whole family, at the sight of the *medio d'oro*, convinced me still more than his words. Will Spaniards presume to say all this was a farce? For my part I cannot think so, and I testified my opinion by raising the good Indian from the ground; I begged of him, moreover, seeing how impossible it was I could manage other-
wise

wife for want of money, to order the topith to conduct me to Quicattan, where undoubtedly I should obtain change, and would pay him. He agreed in the reasonableness of my request; and as the fundamental laws of the country expressly enjoin him to give all aid and protection to travellers, he accompanied me to the casa reale, and in a dignified tone, of which I did not imagine him capable, ordered the topith to proceed with me to Quicattan.

I departed therefore at eleven in the morning, after taking some refreshments: it was necessary in order to pass the mountain, at the foot of which Aquietepec is situate, to ascend by a path only two feet broad, cut in the side of the rock. Let the reader figure to himself two hundred steps of this tremendous staircase, from each of which a precipice was visible below, six hundred yards deep, in which with horrid crash Rio Grande forced its way, and then conceive the dread which froze my faculties; I trembled in every limb, my head turned dizzy, and I was obliged to alight, and lead my horse behind me; I held him by the bridle, but without looking back, and constantly ready, in case of the least false step, to leave my hold, and let him drink alone of the water of that stream, which would for him have been the river of oblivion. Oftentimes at a slippery spot, there was merely the branch of a tree, laid on insecure stones, to hinder the passenger from rolling into this frightful abyss; beyond, it was requisite to make a turn in a very narrow passage, where the body of a horse could only pass by twisting; I know not how the poor animal contrived, though one might freely venture a wager he had done so a hundred times.

By three o'clock I found myself on the crest of this mountain; spite of its elevation, as nothing is great but by comparison, it seemed but a hillock by side of those mountains I saw on my left: we travelled on this crest the space of three hours. I found here some new species of cactus with flat and rampant leaves, and an aloe with crenelled leaves, dentated at the edges with thorns.

The neighbouring mountains, however lofty, presented to our observation several villages; one of them termed San Juan del Ré; but which was not the village of that name we sought.

I was now enabled to enjoy at leisure one of the most beautiful prospects in nature; behind me, still were distinctly visible the environs of Tecuacan; in front the two prominences of La Corta, a mountain six leagues from Guaxaca; Rio Grande ran on my right between frightful steeps; finally, on the left, an immense country consisting of hills and gorges covered with wood, extended between me and the mountains on which San Joan del Ré was situate, and terminated with an insensible slope towards Tecuacan.

I began to be fatigued and weary of so long a route, when an opening shewed me the end of my toils, at least for this day. This was Quicattan, which we discovered two leagues before us, in a tolerably handsome gorge; we descended into it by a road somewhat less bad than that of the ascent; but the aspect it presented was not less horrible: it was a perpendicular chasm of eight hundred yards, by a breadth of thrice that number, seemingly occasioned by a mountain which had been swallowed up in this spot, and the fragments and ruins of which strewed around Quicattan formed so many eminences.

Combined with this scene of horror was yet somewhat pleasing; on the salient stones of the scissure of the mountain, up rose the *cereus Peruvianus*, which formed a very grateful decoration.

But how much was the pleasure of beholding Quicattan interrupted by the appearance of a *garita*, which seemed to forbid my entrance! How to pass without being stopped, interrogated, and delayed by these wretched guards! These were the continually renaescent

subject of my fears ; to sleep on my horse, to counterfeit sickness, these were slender stratagems now worn thread bare, and which I felt no inclination to repeat : I chose a plan more simple, founded on the little consideration these kind of people had inspired me with, as despicable here as elsewhere. On getting near them, I descended my horse in a bold and determined manner, and my gold cane hanging at my button hole, and my diamond ring on my finger, entered the garita without ceremony, and pulling out some gold before the tobacco guards, related to them the embarrassment I was under for want of change. I mingled the statement with a thousand incidents relating to my dread of thieves, and the unevenness of the road ; finishing with begging change for some medio d'oros, or doubloons. Such prattle no doubt made them so silent ; they never put a single question to me : on the contrary I met with civility from them, approaching even to meanness, and they gave me change for as much as I wanted. I then thanked and left them, inviting the chief of the guard, in a manner a superior accosts one beneath him, to pay me a visit at the casa reale.

Quicattan, the capital of an ancient kingdom, is still a pretty large town, containing about two hundred families. It is planted with trees of every kind, beneath which many fountains of fresh water, spread health and coolness. I made the tour of the town : its population appeared to me considerable, for every where I saw men walking about, and women, seated in the current of the rills which flowed from the fountains, combing, washing, and soaping themselves, for bathing is very usual with the Spanish women here, especially the head ; after well washing the head, it is soaped with the powdered root of a polyanthus, which I brought back with me, and which is sold in the country by the pint ; with this substitute for soap, the shoulders and bosom are likewise washed. The sight of the beautiful black hair of these women, hanging down the neck and shoulders, extremely fair, was highly interesting, nor did their simple dress delight me less ; their long hair, divided into two tresses, and interwove with a rose coloured ribbon, falls down to the ground ; a very white shift, a furbelowed muslin petticoat, a scarf of gauze, or Alençon lace, sometimes bordered with a fringe of gold or silver ; this, with a little bouquet on the side of the head, compleats their neat costume, a costume, if seen, which would not be despised even by our nicest coquettes.

In this part I remarked a degree of emulation in culture, which I noticed no where else : corn is sown, and the trees are lopped and grafted. I remarked, in the hedge which surrounded a very pretty garden, a species of *crescentia didynam angiosperm*, which would have delighted Linné, seeing he enquires if any new species exist ; the leaves of this species are in bundles, of the same form and colour, though smaller than in the one noticed by the father of botany ; but the fruit, which is but two inches in diameter, is ten inches long, angular and tuberculous like the cacao ; the seeds of the shape of a heart, smothered in the pulp, are not larger than those of the capsicum. The fruit is used in kitchens as a pot-herb, or in ragouts : I met with the same again in the markets, at Campechy.

I was solicitous of seeing the parsonage house and the church : the first was very commodious ; its owner, the rector, received me at first with coolness, but on learning I was a botanist, he made amends by a profusion of civilities, and consulted me on some complaints under which he laboured. This clerical gentleman was of good appearance, with ruby countenance, which bespoke good living.

The parish church is large, well lighted, and kept remarkably clean ; it is true, on this occasion it was put in order, as the feast of Pentecost was to be celebrated the next day. A matter that surprised me, was to see a school-master there practising motets for the

the following day, and six choristers repeating the musick in very good time. To me the air was pleasing, and not without taste.

The belfry is not more singular ; it is raised on a natural mound of earth, and consists of four piles, eighteen feet high, fastened and crossed at top : from the cross bars the bell is suspended, weighing not less than ten thousand weight. The roof of the belfry is of straw thatch, like the roofs of our ice-houses.

I returned to supper ; and in the interval arrived the officer of the tobacco guard, from whom I learnt whatever I would by means of a few glasses of brandy. The rogue was perfectly well acquainted with the whole country from Panama to Acapulco, and from Carthagena to Vera Cruz : he talked fluently on politics, declaimed against the government ; and in case of need, assuredly was open to seduction.

The casero introduced to me likewise another traveller, in an honest Franciscan friar, about to preach at Guatemala. I enquired if he was inclined to accompany me in the morning ; and he consented, provided I would wait until he had celebrated mass : this being agreed upon, I retired to rest, and he to supper.

The next day we set off at five in the morning, and arrived, after a smart ride of a league and a half, at the passage of Rio Grande. Rain had fallen in the mountains ; another day's rain would have rendered the river impracticable. Here it is much wider than at Aquietepec, its breadth not being less than four hundred yards, and the sides consequently much less precipitous. An Indian, beckoned to from the opposite side, came, and took the leading horses by the bridle, and, perfectly naked, conducted us over the river ; for our part, we were in the water up to the saddle bow, and he to the breast ; and this took place so leisurely that I had full opportunity of noticing all the danger. The current was so rapid, that it confounded me. I was obliged to steady myself by the pommel, my legs on the horses rump, and my breast on its neck. The animal itself trembled, and advanced not a step without first feeling his way, on account of the enormous rounded stones at the bottom. At length we got through, and my fellow traveller, breathless with fear, and not less pale than myself, remarked in good French, that if we had been drowned without having first gone to mass, the people would not have failed to ascribe our death to a failure of devotion. I laughed heartily at the fancy, and seeing whom I had to deal with by this sally, I was no longer under any constraint with him : he was indeed one of the pleasantest fellows, for a monk, I ever met with ; and with this a man of sense, one who had seen the world, lively, and inquisitive as much as becomes a man ; finally, he was highly engaging, obliging, and unceremonious.

We continually kept along the banks of the river till dinner time : it was covered with twenty species of water-fowl, both large and small, especially the crow, or goose, *corvus aquaticus minor*, Linn., which I much regretted not having time to examine.

We arrived at an early hour at Don Dominiquillo, where, thanks to the good father, who took with him a well supplied larder, we made an excellent dinner.

Don Dominiquillo is situate at the confluence of the Rio Grande, and the Rio de las Vueltas, or the Turns, so denominated from its frequent windings : it abounds in fruit trees, and is plentifully watered.

As we were saddling our horses in order to depart, we heard a horn, and immediately after saw a Spaniard, dressed in blue turned up with red, with a large silver plate, in form of a shield, on his side, and a small horn of the same metal depending from a cord which passed over the shoulder ; he was a courier. As a specimen of his diligence, he left Tecuacan the day before, and reckoned on reaching Guaxaca on the

morrow by fix in the morning. I held discourse with him for a few minutes: he seemed inquisitive, but I readily concealed from him my designs: he took a different road to ours, over the mountains, in order to avoid crossing the rivers, no doubt from apprehension of being stopt by their course.

As for us, we passed through the gorge in which flows the river de las Vueltas: this gorge is in places a hundred paces broad, at others scarcely a dozen yards: in order to go in a direct line through the windings of this gorge, it is necessary to cross the river seventy times: my fellow travellers reckoned the number; the muleteer by means of small pebbles, and the monk by the beads of his rosary, and their accounts tallied; for my part, after the twentieth time I was tired of counting, and was so much fatigued that I could willingly have halted midway in order to take a nap.

I found on the banks of the river a plant much resembling cockle*, a tree covered with flowers, which I recognized immediately for the custard-apple, or annona, but which in the country is commonly called the chirimoia, which makes it almost certain that the famous chirimoia of Mexico, so much extolled, is really nothing else than a reticulated annona. I moreover found here the Mexican solanum, arboresecent, and with large lanceolate leaves, which I had before noticed in the King's garden, and a species of fruit-bearing asclepias, with leaves like myrtle, a straight stem, and yellow flowers of the shape and size of our small yellow jessamine.

At length the gorge through which we were travelling, enlarging to a quarter of a league, we left the windings of the river, and arrived at Atletlauca, a pueblo situate in the gorge, and most desirably on account of its excellent water. On the left of the mountains and on a glacis, the slope of which is towards the river, stand the church and the casa reale.

I felt unpleasantly from having my feet so frequently wetted, and retired to rest without supper, in spite of the sollicitations of my fellow traveller: tormented by the gnats, I rose the next morning by three, and wakened everybody: it was so cold that we were obliged to make a fire: my thermometer stood at 9° above the freezing point, ($48\frac{2}{3}^{\circ}$ of Fahrenheit). We made a hearty breakfast from the store of the good father, and when about to saddle my horse, I was witness to a spectacle which frightened and surprized me exceedingly: the riding mule of the master of the house, fastened to a post, had all night long been sucked, some said by a vampire (a spirit), but really by a living animal, a bat, which had bit it between the left ear and the mane, below the occiput, and had drawn from it more than four quarts of blood: the whole head and neck of the mule was covered with gore, as well as the post, against which it no doubt had rubbed, in order to disengage itself from this cruel harpy. I was in complete astonishment at the sight, but I learnt that such events are common, and that when one bat has succeeded in thus opening the vein of a horse or mule, all the rest come and fatten themselves from this source.

I guessed this place to be wretchedly poor, from the care I noticed with which some women were collecting a few grains of maize, from a spot where a caravan of mules had been recently fed. I learnt also that the maize which was the most esteemed in the country, and most common, is long, flat, and quadrangular, and the straw white.

At about four o'clock we departed, and, four leagues from Atletlauca, after having crossed the river of Turns seven or eight times, we distinguished Galiatitlan: charming hamlet! no, never shall I forget thee. I no longer wonder at the anxiety I felt that morning to set off, the impatience I experienced to arrive: these were, doubtless,

* *Agrostemma decandria pentagynia.*

forebodings of my good fortune. Not mines nor metallic wealth dost thou enjoy, perhaps, but for me, nothing that is curious; but thou first presented me with the object of my prayers and researches: yes, thou art the most lovely of hamlets!

At Galiatitlan it was that, for the first time in my life, I saw the cochineal alive on the nopal by which it is nourished: I even trembled with extasy: the day before, my capuchin, who was very well acquainted with the country, on detailing its riches and cultivation, had mentioned to me cochineal. I merely expressed to him a desire of having some in my possession, that I might the better be enabled to describe it; but when he told me it was likewise to be found at Los Cues, which I had passed through, I was vexed with myself exceedingly, at missing the opportunity I had had of finding it sooner, and at less expence.

Still I had nothing wherewith to reproach myself, for how was I to have known there was cochineal at Los Cues? Under apprehension of disclosing my secret, I had imposed on myself a restriction from even mentioning the word cochineal. In this village I met not with a single Indian who understood Spanish; and the only Spaniard I encountered, though he did indeed speak to me of cochineal, by no means even hinted at its being cultivated there; I never thought, therefore, of looking for it at that place, and chance alone could have thrown it in my way.

After all, I had no cause to repent my going so far in search of it, as my extra journies afforded me the opportunity of seeing more of it, of speaking of it more largely, of procuring excellent vanilla, and finally, of meeting with more safe means of transporting and preserving all my treasures.

To return to my dear cochineal. On arriving at Galiatitlan, I saw a garden full of nopals, and had no doubt I should there find the precious insect I was so desirous to examine. I therefore leapt from my horse, under pretence of altering my stirrup leathers, entered the grounds of the Indian proprietor, began a conversation with him, and enquired to what use he put those plants? He answered, "to cultivate *la grana*." I seemed astonished, and begged to see the cochineal; but my surprize was real when he brought it me, for instead of the red insect I expected, there appeared one covered with a white powder. I was tormented with the doubts I entertained, and to resolve them bethought me of crushing one on white paper; and what was the result? It yielded the truly royal purple hue. Intoxicated with joy and admiration, I hastily left my Indian, throwing him two reals for his pains, and galloped at full speed after my companion, who was waiting for me at a wretched sugar-work, the canes about which, however, were superb. At last, said I to myself, I have seen this insect, have held it in my hands, I shall undoubtedly meet with it again, as I am now in the country where it is cultivated: the Indians assuredly will sell it me; and I thus shall be able to bear off my prize, the object and end of all my ardent wishes!

Still certain reflections mixed gall with my delight: I could not hide from myself the difficulty I should have to bring to a safe haven an animal so light, so pliable, so easy to crush; an animal which, once separated from the plant, could never settle on it again: the shocks of the horse, a journey of a hundred leagues by land, could I hope with these to preserve it? and the enormous plants on which I saw the insect, was it possible for me to transport them? how was I to hide them? and what a case must it not require to contain a tree eight feet high, by a diameter of five or six.

These mournful ideas occasioned me a deep revery, which not all the gaiety of the capuchin could disperse. I excused myself, by pretending fatigue, and the vexation I endured from my horse, the worst, in real truth, I had hitherto crossed.

To

To San Juan del Ré the distance was six leagues, with but one intervening mountain, called La Costa. It is nearly a league perpendicular in height, and the road over it is almost as difficult as that of Aquietepec; while to complete our trouble in passing it, we were beleaguered by two caravans of loaded mules: the road was so narrow, that we were obliged to alight from our horses, and climb upon rocks, in order to leave room for them to pass, and made way for five hundred animals following each other one by one: the sound of the bells, and the whistling and smacking of whips of thirty muleteers, echoed by the surrounding mountains, occasioned a strange confusion, a noise with which we were almost stupified.

However, after attaining a certain height, the road becomes wider and of more gentle ascent. The soil consists of vegetable earth, yielding in abundance excellent herbage, on which, at their halting, the mules are wont to pasture. This mountain, constantly enveloped in fog, is remarkable for its perpetual cool, and the deep shades; its pines, its oaks, and large timber of various kind, occasion regret, that to remove them to the plains, should be a work so difficult and expensive.

The prospect from the crest of the mountain is wonderful: behind is seen Quicattan, and that mountain of Tecuacan, from which we had distinguished the one on which we were, in part extended the magnificent plain of Guaxaca, and the valley, between two chains of mountains, which reaches to Guatemala, three hundred leagues distant. On the right and left, the eye embraces distinctly a scope of forty leagues of beautiful country; but in front it was that a real paradise was displayed. The views of Guaxaca in the distance, and of fifty villages or hamlets on this side of it, vying with each other in beauty and pleasantness of site. The splendor of the stone with which they are built, their roofs of curved tiles as in Lorrain, the gardens and charming trees with which they are encompassed, had certainly a ravishing effect.

The road presented us with objects no less curious: I might have collected more than twenty herbaceous plants and shrubs of a curious and novel kind, but all my attention was attracted by a flower of a splendid blood-red colour: it was a lily of St. Jago, *amaryllis formosissima**; the whole neighbourhood was covered with it. I recollected having seen it in flower in the royal apartments at Versailles; and I promised myself to pluck some bulbs of it on my return, for my friend Mr. Thouin, the head gardener of His Majesty; he had made me a present of two, for the purpose of naturalizing them at Santo Domingo, but having left that island so soon after reaching it, I had entrusted them with an inhabitant of the colony, by whose negligence they perished: and here I cannot refrain from remarking how little curiosity, invention, or industry, except indeed in what regards the peculiar objects of culture, such as coffee, sugar, or indigo, is displayed by the inhabitants of Santo Domingo. His immediate culture alone engrosses all his faculties; what is merely commodious or ornamental never enters his fancy: from such a character is not to be expected any care for the naturalization of different fruits and flowers, or a solicitude of perfecting such as have been transplanted there: why should I? he questions; am I not sufficiently occupied in making my fortune? I look, as the end of my labours, for enjoyment of life, and next year I shall set off. Even ten years after, the colonist is still found on the island; and finally there he terminates his days.

We arrived at Sant Juan del Ré at noon. The lands sown with corn through which we travelled, reminded me of Europe. The first thing that struck me on entering the pueblo, was a plantation of nopals in most excellent order. I was dying with impa-

* *Hexandria monogynia.*

tience to enter it, but was obliged to accompany my party to the *cafa reale*: while, however, supper was being prepared, I slipped away. Thinking it the house of the rector of the village to whom the plantation of nopal was stated to belong, I entered that of a tall and stout negro, who was the *alcalde* of the place. After first compliments, I fixed my attention on a pewter bason on the table, in which I saw a quantity of dry cochineal, mixed with dirt; respecting it, I put a thousand questions to him, and stated how much I should be gratified in seeing his plantation of nopals; my request seemed to please him as much as my condescension; for this description of people is in general treated by European Spaniards with the most profound contempt. He led me with readiness to his garden, at the gate of which I saw a singular affixture; it was a leaf of the nopal nailed to the threshold, on which, fastened by as many pins, were stuck a number of caterpillars, and two or three species of *coccinelli*, one of which was the *coccinella cacti coccinelli feri, coleoptris atris duobus punctis luteis*, Lin. This, at first, I regarded as some amulet or charm, and of bad augury with respect to the religion of my African; but the lady of the *alcalde*, though as black as her husband, undeceived me in the most satisfactory manner, by informing me that there were *los enemigos de la grana*, the enemies of the cochineal, which were thus immolated at every harvest, and which were placed there in order that they might be universally known and devoted to general persecution.

The plantation of nopals might have an extent equal to an acre and a half; it was neat, kept in good order, and the trees loaded with the last crop, which appeared to me a very abundant one. The nopals, all of them of the same age, were about four feet high, by as many broad; the order in which they were planted like as at Galiatitlan, was from east to west. I fancied that I discovered the male insect in a species of *coccinellus*, of a very lively red colour, but I have since been satisfied by experience, that I was in error. The proprietor informed me, that he collected from four to eight *arobas* of cochineal annually, and that its price on the spot was from eighteen to twenty-four reals the pound.

While in conversation with the *alcalde*, my travelling companion became impatient for his dinner, and sent out in search of me. I ate with a good appetite, imagining we should make another stage after dinner, and reach Guaxaca that day, from which we were yet eight leagues distant; but the monk, who loved his ease, signified that he did not mean to proceed farther.

For my part, I resolved on setting off immediately after dinner; and returning thanks to my monk as well as his major-domo, to whom I made a small present, I jumped on my horse, and already anticipated the sound of the clack of the whip in the faux-bourgs of Guaxaca: how wide in my reckoning was I! The rascally topith had furnished me with a mare in foal, which could not be made to exceed a walk. I was perfectly in a rage, but soon became calm from the reflections to which the incident gave rise. I saw confirmed the old observation, that the depravity of man is in proportion to the extent of society; in fact all the Indians I had seen in my way as far as Sant Juan del Re, were generally speaking simple, mild, and ingenuous, because at distance from great towns; but from this place to Guaxaca, they are sly, subtle, and even knavish and idle: it may truly be said, that the neighbourhood of European Spaniards has been a pest, a plague equally unfortunate and prompt of diffusion.

How different the conduct of the topiths who had been my conductors before this one! I had had tolerable good horses, or at least had not been led into error, but this scoundrel had had the impudence to extol the excellence of the mare I rode, though a truly good-for-nothing beast; but this was not all, tired at length with the obstinacy

of the wretched animal, I enquired if there was no place where I might rest? the topith answered no. I had heard of the band of thieves of Attetla, and now had strong suspicions, not only that my conductor was a rogue, but also that he might be one of the band.

Night was drawing on, I scarcely knew what plan to adopt, when fortunately I distinguished a procession, which satisfied me we were at but a short distance from Attetla. I made all diligence to reach the rectory, alighted from my horse, kissed the sleeve of the rector's surplice, according to the custom of the place, and enquired for the *casa reale*: we entered by the lower part of the hamlet, he pointed out the *casa* in the upper part, about a quarter of a league distant, whither I repaired: it is situate in an immense explanade, and forms part of a large pile of building, which seemed to me a farm-house: in front there is a large gallery paved, on the left a prison, on the right a *tienda*, or shop, kept by the lieutenant of the *alcalde*; on the north-east the explanade is terminated by an immense building, which seemed a magnificent castle. I had the curiosity to visit it, and found it to be a convent of Dominicans which had formerly belonged to the Jesuits, but which their successors had suffered to fall to decay. The architecture of it, half Roman, half Arabesk, notwithstanding the excellence of the masonry, was, in my eyes, poor: I entered the hall in which the courts are held, the ornaments of which announced that the district of this *alcadia* is large.

While waiting the return of the lieutenant of the *alcalde*, in order to procure supper, ten or twelve men in cloaks passed in succession before me, making low bows, and as if desirous of accosting me. Their little promising physiognomy was a sufficient inducement with me to send them about their business; and I afterwards learnt that they were idle scoundrels, who lived (in the language of our excellent La Fontaine) merely by *franches-lippées*, or spunging: men fit for those employments only which exact neither labour nor fidelity. I concluded, as must every one, that such fellows are of no value, and that the sooner the country should be quit of them the better.

In the mean time the lieutenant of the *alcalde* returned: I paid him a visit, and found him seated at his counter in the middle of the shop: he received me with the gravity of a monarch giving audience to ambassadors, and scarcely vouchsafed a look; but I had for my part too contemptible an opinion of the wretch to take any offence at my reception. All I wanted of him was somewhat for supper; he furnished me with bread, four eggs, and a gallon of wine; but shortly after I had occasion for him, for perceiving that my knave of a topith gave my horse nothing to eat, I requested the interference of the lieutenant of the *alcalde*, who attended to my request, and even threatened to make him pay for its food himself.

After this I laid myself down to rest on some very clean mats in the auditory, and slept with that tranquillity a many may do in a court of justice, who have nothing to dread from the laws.

The next morning I departed at day-break; the cold very sharp: my mare, thanks to my pains, went somewhat better than she had done the day before, but she soon became tired, and at two leagues from Attetla, I was fain to send away my topith, not without a strong inclination to give him a sound threshing: fortunately for him, pity interposed and pleaded his cause, so that he escaped punishment.

I continued my road on foot. The town was no more than a league and a half distant, the country along the road delightful. I fancied myself transported into our plains in Europe, and proceeded to Guaxaca between hedges filled with trees and plants unknown to me before: among these were a *juniperus sabina** of twelve feet in dia-

* *Dioctia manadelphica*.

meter, *convolvuli*, *palos*, *cordovans*, &c. The suburbs of Guaxaca were thickly set with plantations of nopals, at which I glanced an eye occasionally, but without exhibiting any symptoms of curiosity. Finally, I entered the town with the appearance of a person who had recently left it for a walk, and halted at an inn pointed out to me on my right, a hundred paces distant from Nostra Sra de la Soledad, the term of my pilgrimage.

Nothing can be conceived more magnificent than the site of Guaxaca. From Sant Juan del Ré to this town, opens a plain two leagues in breadth, which extends the length of five or six to the environs of the town. On the lowest part of the slope of a hill, which appends to the chain of mountains on the north-east, stands Guaxaca, the capital of the province of the same name, at a distance of somewhat more than a league from the mountains. It fronts the opening of three plains, that of Sant Juan del Ré, that which leads to Guatemala on the south-east, and another on the south-west, of which I forget the name. This position has rendered it a centre at which the first sale takes place, of all the anniseed, cochineal, and vanilla collected in the gorges between the high mountains, by which it is encompassed at distance of five, six, and seven leagues. It is amply furnished with cereal productions, and fruit of all kinds from the plain; the foot of the slope on which it is built, is bathed by a beautiful river; and well planned aqueducts supply it with abundance of water of the utmost excellence. The air, constantly refreshed by eastern breezes in the morning, and at evening by others from the west, is pure and delightful, and of such moderate temperature, that at eight in the morning in May, my thermometer denoted 16° above the freezing point, and at noon 22° *. From this happy circumstance, notwithstanding it is situate about the 20° of latitude, it enjoys an ever-blooming spring. Finally, magnificent and highly ornamented prospects, excellence of soil, profusion of fruits as well European as American, which succeed each other in unremitting continuance, would make an actual paradise of Guaxaca, were it only possessed by a more industrious and active race of men.

Its numerous steeples and elevated domes give this city, at a distance, an air of grandeur; and it may be truly affirmed, that its interior corresponds. It is sixteen hundred fathoms long, by about a thousand broad, and nearly quadrangular, if the suburbs be included, which are replete, as I have before remarked, with plantations of nopals and gardens. Its streets are wide, straight, well-paved and level. The houses on each side are built with stone, two stories high. At the time I was there, a town-house was building on a plan which evinced some taste, and will prove a great ornament to the great square on which it is built: the stone is of a sea-green colour. The same square is adorned by the bishop's palace and the church, which form two of its sides, and both of which, after the manner of the Spaniards, are entirely surrounded by arcades, strongly constructed, and of infinite utility in protecting passengers from the sun and from rain; to conclude, all the churches, which are numerous and finely built, are neatly whitened without, and richly ornamented within.

The population of this city, including negroes, mulattoes, and Indians, amounts to six thousand; it is the residence of a bishop and a governor of the province, and is under the jurisdiction of the audencia of Guatemala, to the viceroy of which province the governor of Guaxaca is subordinate.

The inn to which I had been directed was so wretched and filthy that I could not rest satisfied with making it my abode. I made haste in dressing myself, deposited in my room the packet of clothes which I had constantly carried with me, and which I

* 68° the morning, and $81\frac{1}{2}^{\circ}$ of Farenheit at noon.

found, however small, yet cumbersome, and left the place, much embarrassed at my appearance, and not knowing whither to go. Without a cloak I looked at once a foreigner; a net for my hair, and a broad-brimmed hat scarcely in any degree protected me from a crowd of inquisitive eyes. To get rid of the curiosity of the people, I entered the first church I met with, and thus without suspecting it, accomplished my vow; for it turned out to be that of *Nostra Sra de la Soledad*. After admiring its treasure, its gildings, the dome, in a bad taste, but built of brick varnished externally with chequer-work, and a multitude of *ex votos*, equally ridiculous and fanatic, I left the church as little forwarded as, and in no better heart than when I entered. I wandered about at random in the streets, when at last I noticed that I was followed by a man in a cloak, whom I had seen at the inn. He was loaded with rosaries and scapularies, and at first sight might be mistaken for a very devout zealot. When in the church he kneeled as I kneeled, rose as I rose, walked in my steps, and stopped when I halted. I was seized with fear. I imagined him to be a spy employed by the police, and fixed there purposely to watch my motions, or perhaps those of all new comers. I resolved on knowing the truth, and accosted him, enquiring whether his rosaries were for sale; he answered in the affirmative, but that he had another occupation, which was to learn where I should pass the day: where I please, was my instant answer, in a tone demonstrating a greater fund of assurance than what I actually possessed: but why this question? Because, said he, simpering, and in a mysterious manner, I should feel myself so happy if it should be in my power to procure any enjoyment to a stranger so kind and generous as you appear to be. At these words, which at once unmasked his character, I breathed with greater freedom. I now perfectly comprehended that this gentleman was no other than what at court, where all things are painted in their fairest colours, is termed the *prince's friend*. Gracious powers! said I to myself, and is it in the very sanctuary of the immaculate Virgin that vice presumes under the veil of hypocrisy to exhibit her allurements? Turning then to the unknown; friend, said I, you follow then a pretty and very obliging sort of trade; but I have no need of you, and beware how you follow me any further.

After this incident, I penetrated into the city, where I met with some tolerably handsome coaches, and crowds of people. I was solicitous of seeing the cathedral. It was now the third festival of Whitsuntide, and high mass was celebrating; the music was fine, grave, and majestic, the voices excellent, the cadences in good measure, and the numerous and solemn pauses well calculated to inspire devotion and reflecting thoughts: I was in a profound extacy, when at the elevation of the host, a grey-headed priest, holding a silver cross in one hand, like our choristers in France, and in the other a wand of the same metal, like our porters, touched me gently with the latter, and requested me to take off the net from my hair, which hitherto I had constantly worn unnoticed in all the churches; I did immediately as I was desired; and could but admire this regulation, though feeling hurt at the species of affront I had unwearily drawn upon me, I immediately left the church.

I had occasion for some repairs to my watch, and after looking about, at length found a watch maker's. He was absent, but his wife received me in such a manner as almost to put me to the blush; she was a woman of six and thirty, a brunette who had been handsome, and was still tormented with that immoderate desire of pleasing, which some women lose only with life itself. She made me a thousand questions, and succeeded in learning I was a botanist. She concluded thence that I was a physician, and endeavoured to persuade me to fix at Guaxaca, telling me, that notwithstanding the extent of the city, there was not in it either a physician or surgeon, and that she would

vouch that her husband, who was a corregidor, should forward me to the full of his ability; she even in pretty distinct terms told me she could herself be of service to me; and I began to feel somewhat for the gratitude she might expect, when fortunately her husband entered: he was an excellent machinist, and drew extremely well, as he satisfied me by a multitude of works, which he displayed as well in relief as on paper, of his doing. He had moreover rather a curious garden, in which I gathered some feeds of mira-sol, and sage with corn-rose flowers.

After leaving the corregidor, I obtained a direction to a trunk maker's. My plan required I should be furnished with cases or coffers easy of transport. The tradesman to whom I was directed shewed me some of all sizes. I chose eight two feet long by fourteen inches broad, and of similar depth. They were of a white and very light wood, dove-tailed, even bound at the corners, and with locks; they were moreover so solid and so well made, that better could not have been produced in any workshop in Paris. The price also was reasonable. They cost me seventeen reals the pair, or about four shillings each; I asked for no abatement, and my liberality purchased me the present of a basket of apricots which had just been given to the trunk-maker, and which he observed me notice with longing eyes. This European fruit is so much degenerated from not having been grafted, that it is but little larger than the Montmorency cherry. It has notwithstanding preserved its original flavour.

I now perceived that I should never have been able at Los Cues to have met with the same resources as at Guaxaca; there indeed I might have obtained cochineal, but this was not sufficient, the means of transporting it were alike necessary. I was consequently very well satisfied with my bargain: I merely conditioned, over and above the purchase, to have partitions made in each of the boxes, and I brought away with me the keys.

Delighted at having thus assured in a degree success to my undertaking, astonished at finding myself so far advanced, and at having so readily overcome all the difficulties I had to fight against, I was scarcely able to bear my weight of joy, and imagined myself in a dream from which I dreaded to awake, but which every instant I found would be the case; the greater the facility I had hitherto met with, the more was I apprehensive of the obstacles which I painted to myself would attend the future. This mixture of satisfaction and inquietude occasioned an oppression on my mind, a melancholy which I was utterly unable to shake off.

In this state I walked through the streets without well knowing whither I went; at length I found myself in one of the suburbs called de las Bueñas or the Turnings, a name distinctive of the gardens of this country, where it is considered beauty to intersect them by walls and partitions, which occasion so many windings and recesses in the same inclosure. Among others were some plantations of nopals, the order of the rows in which I observed to be still the same as I before had noticed, that is to say, from east to west, but in almost all of which the crops had been recently gathered. In some plantations I saw men employed lopping off the branches, in others planting; at length I distinguished one which appeared to me magnificent, and so thickly loaded with cochineal, that not a single leaf could be taken from the nopal without crushing a thousand of the insects. In order to take a survey at leisure, I entered into a garden, parted from the plantation only by a hedge, under pretence of buying flowers. The first objects in this garden which excited my attention, was a violet coloured aster, as large as those grown with us, but produced on a shrub resembling, by its pinnated leaves, our elder tree, and which had a very fine effect: what however engrossed almost the whole of my attention and thoughts, was the beautiful plantation of nopals, and while the

the bouquet I had ordered was being gathered, I satiated my eyes with the spectacle before me. The nopals were thickly planted at about four feet distance, in lines six feet apart. I learnt that this nopal ground belonged to a negro who was not there at that time, I fed myself with hopes of buying of him both the nopal and some of the insects.

After traversing several other gardens, I returned to the city, and caused those to be pointed out to me belonging to an apothecary whose name was Don Antonio Pifa, and which had been highly extolled by the gardeners I had spoken with. The proprietor, conceiving by my dress that I was a Frenchman, shewed me the utmost civility, and proffered me his services: after which, informing him, that being a botanist I was anxious to see his garden, he caused his nephew to accompany me to it, politely excusing himself from not being of the party, owing to his advanced age and infirmities.

This garden, intersected by five or six walls, which, no doubt, announced so many fresh acquisitions, appeared to have been framed at great expence. A copious fountain, very pleasingly ornamented, delivered its waters at the height of eight feet, into an antique vase, whence through four spouts, they descended into a spacious basin, from which they were conducted into different reservoirs. A number of indifferent pinks, a quantity of *salvia othecas*, a species of sage, some agaves, mililot, blue everlasting, oxal * or sorrel, pot-herbs, *malvæ* (mallows), apricots, grapes, and peaches; these formed the whole of the rarities I found in this garden, which moreover was kept in very indifferent order.

While I was there, I saw a female enter the garden, the lady of a corregidor, in a rich veil of black velvet trimmed with gold fringe. She came escorted by a very handsome man for the purpose of seeing, as I afterwards learnt, the face of a Frenchman. I paid my respects to her in the most polite manner, yet, hurt at thus becoming the object of general curiosity, and much vexed at my foreign appearance. After she had retired, I went to return thanks to the apothecary, and spoke in high terms of his garden.

Much pleased with me, Don Antonio Pifa was solicitous I should visit another garden not less curious: I repaired thither, and did indeed find a garden which would have done honour to the marshes of Paris, by the fine display it afforded of cabbages, artichokes, raspberries, apricots, and grapes. Water was every where distributed in little gutters along plots planted with parsley, turnips, radishes, and well hearted lettuce. Five or six workmen Indians, or of mixed breed, were at work here; here also I found the owner Don Gregorio Meuta, one of the corregidores of the city, a man about five and forty, of handsome countenance, and graceful deportment: he condescended to applaud my researches and curiosity, and pointed out to me every thing that was curious. What however appeared to me most worthy of remark, was a tree which at first sight resembled much a reine claudé plum-tree, but which was no other than a *malpighia* which I had not hitherto seen. I begged the proprietor to allow me to gather some of the fruit in order to obtain the stones: the fruit it yields is as large as our white-heart cherries. I wished to pay for what I gathered, but was not suffered; nor would even the Indian workmen who attended accept the two reals which I proffered them.

I again returned to my apothecary, and having given him a picture of the wretched inn at which I had taken up my abode, a picture which, from the difficulty I had to

* *Decandria pentagynia*.

express myself in Spanish, made him laugh till the tears dropped, I besought him to point out to me some one where I might get a decent meal; and this he promised to do. The conversation next turned on the different objects of culture in the country: he enquired if I was acquainted with them, to which I answered in the affirmative, with the exception of vanilla, which I was anxious of seeing in order to describe it with the precision of a botanist. A priest, who happened to be present, interrupted me, to state that he had some in a wood dependent on a farm belonging to him, about six leagues thence, and that, if I wished it, he would send one of his Indians thither with me the next day as a guide: he even offered to obtain a horse for me, and this with all that politeness and kind anticipation which we Frenchmen are wont to deem peculiar to ourselves.

I then took my leave, exceedingly pleased with my day's work, and well convinced, that with a little hardihood and activity much may be effected.

I repaired to my new inn, recommended by Don Antonio Piza, conducted by a servant of that gentleman: it was kept by a Frenchman, who had been cook to the late governor. I accosted my countryman with a sensation of pleasure, and with that confidence which might easily be conceived by any one who for the instant would place himself in my situation. I did not even take into account the difference of our stations in life, nor had I any reason to repent my condescension, for he was really, and not merely in appearance, a very good kind of man. I could perceive he was rich, though he complained of his bad fortune, and plainly saw that this was only the better to hide his prosperity, and not excite envy, in a people always jealous of our industry and success, and at the same time, possibly, that he might the better be enabled to leave the country, at a favourable opportunity.

I begged of him to give me a good supper, assuring him that it would be the first since my leaving France: he promised he would, and kept his word, for I had one truly worthy of a governor's table; and afterwards was enabled to take a delicious night's rest, undressed, and between sheets, on a tolerably good bed, an enjoyment I had not experienced for a length of time.

The plan I had arranged, to purchase some nopals and cochineal on the succeeding day, occasioned me to wake very early in the morning: I was up therefore by three o'clock, and taking with me two Indian servants belonging to the inn, each with a large basket and towels, I repaired to the plantation of nopals I had seen the day before.

I left the servants at the gate on entering, and myself took charge of their baskets. The negro owner was scarcely awake. He came towards me with a simple, modest, and civil air, quite different from what is usual among people of his stamp in the kingdom of Mexico. I informed him that being a physician, I wanted, for the purpose of making an ointment for the gout, a few leaves of the nopal, with the cochineal upon them, which I begged him to sell me, as the case was urgent; telling him I was willing to pay for them whatever he might require: he permitted me to take as much as I pleased. I did not require twice bidding, but immediately selected eight of the handsomest branches, each two feet long, and consisting of seven or eight leaves in length, but so perfectly covered with cochineals, as to be quite white with them. I cut them off myself, placed them in the best possible manner in the boxes, and covered them with the towels. I then enquired what they were worth. He protested they were well worth two reals: I readily believed him: I, who would not have held them dear at as many quadruples; but, that I might not render him aware of how good a bargain I reckoned upon having made, I merely gave him a dollar, telling him I had no change, and begging him to keep the remainder to drink my health with. The good old negro

rubbed his eyes, fancying himself still asleep; and while he overwhelmed me with gratitude, I called in my Indians, loaded them with the two baskets, and made off with the rapidity of lightning.

My heart beat in a manner that beggars description: it seemed to me as if I was bearing away the golden fleece, but, at the same time, as if the furious dragon, placed over it as a guard, was following close at my heels; all the way along I kept humming the famous line, *At length I have it in my power*, and should willingly have sung it aloud, but for fear of being overheard. I arrived at my inn out of breath, and slipped in unperceived, and without having met with a single person in the streets. The dawn was opening, but nobody yet had risen in the house. I shut myself up in my room, and then packed my dear nopals, with inexpressible satisfaction, and in the tenderest manner imaginable, in two of my small boxes, taking the precaution to lay them two at top, and two at bottom, separating them by the partition, and sticks of a dry and pliant wood.

Thus, by five in the morning, I found myself in possession of a fine cargo of cochineal, which not a soul had either seen me purchase or pack. The negro who sold it me was a simple, good kind of man, and the Indians, whom I liberally rewarded, enjoining them at the same time to secrecy, with respect to where they had been with me in the morning, were themselves ignorant of what the precious load they carried.

Tranquil on this head, I went to enjoy, beneath some orange-trees in the court, the pleasure of my reflections, and the cool of morning, waiting the period of my host rising. Never had the sky before appeared so beautiful, never the climate so pleasing. The day before my imagination was filled with monstrous chimærae: this day every thing was of charming aspect, and admitted of my giving the reins to fancy.

Whatever my future fortune may be, said I to myself, I have now completed the end of my journey; I may now set off. Yes, even directly; but no; vanilla, which I had been told could be obtained no nearer than at a distance of twenty leagues hence, vanilla comes as it were of itself to invite my taking it: let us effect this second conquest.

At length the people of the house roused from their slumbers. Breakfast was served up, to which I did more justice than any one, and at which I noticed a singular fruit: it was an apple, the pulp of which was soft, and black as raisin. The Spaniards call it *sapota negra*: I opened several, and took out their kernels. As I meant to set out at noon in search of vanilla, I ordered a good dinner to be provided for me at eleven o'clock.

I then sent my compliments to the priest Don Jose Ortiz, and reminded him of his promise, after which I dressed myself, for the purpose of taking a survey of the city.

My countryman, who was my guide, had the kindness to lend me a cloak: with this, my hair in a net, and my broad brimmed hat, I looked perfectly a Spaniard, and had no longer the vexation to endure of hearing constantly rung in my ears, *aquí sta Francese*, there goes a Frenchman.

We made the whole tour of the city, and I measured its streets: it appeared to me, on this occasion, even more handsome than it had done the day before. The only thing which seemed wanting, and which, not only here, but throughout Spanish America, if Mexico be excepted, is every where a desideratum, is an alley of trees, or a promenade: one indeed had been planned here below the aqueduct. There are even basins of stone prepared for conducting water to it from a fountain; and this spot, its situation considered, would without doubt have been a most delightful one for a public walk, but the plantation was never carried into effect, and the whole plan dropt to the ground.

We visited the market, one the best supplied of any I had seen since I left the Havannah. I found in it all kinds of fruit; but what most forcibly struck me, was the sight of raw cochineal exposed for sale: when I say raw, I mean undried, and with the insects yet alive. The price of it was eight reals the pound. I at length returned home loaded with plants, leaves, and branches of all kinds; among the rest with a species of palma Christi, or ricinus*, of an uncommon species, which I have since dispatched for the King's garden.

After having packed my plants in my chamber, I went to a man who had been pointed out to me for one who let horses, and without a syllable said to my host on the subject, who reckoned on having me as a guest at least for a fortnight to come, I hired five horses, at eight reals each, to carry me the next morning to Sant Juan del Ré.

At eleven o'clock I had another meal worthy of a governor's table, and served with equal promptitude and elegance; but what again? Doubtless the reader, in perusing this narrative, will take me for an absolute glutton; but let him pause an instant. I was intoxicated with joy. I sought for gratifications, as a compensation for my labours, and possibly this was of a less dangerous nature than another, for there surely could be no harm in strengthening my poor body, weakened by the fasts and bad fare it had endured, and rendering it capable of withstanding the mortifications it had yet to undergo.

Don Ortiz had not forgot me: by noon his horses were at my door. I immediately rose from table, and leapt into the saddle, loading the muleteer, my guide, with a linen sack, four feet high, which I had bought for the purpose in the morning. After this we set off at full speed, each of us with a handkerchief round the head, covered by a large flapped hat, and the crown of this surmounted with a cone-shaped cap of cotton, to cause a divergency of the rays of the sun, a precaution highly necessary.

We reached, without halting, a mountain four leagues from the city, which it took us a quarter of an hour to ascend. After this we went down into a valley, in which the farm of Don Ortiz was situate. The produce of the valley nothing but wood and maize. We continued our journey two leagues farther, when we met some people belonging to the farm. I wished to address them, in order to know where we might find what we were in search of, but the muleteer pretended to know vanilla very well; and boasted that he could shew it me himself. We in consequence alighted, and during half an hour sought for it in vain among all the trees. I still waited for my muleteer doctor to point it out to me, and, at last, whether from ignorance, whether from design, he shewed me instead of it an arum scandens, with palmated leaves, the stem of which, it must be confessed, pretty much resembles that of the vanilla. I told him he was an ass, and that instead of thus making me lose my time, he would have done much better had he called for one of the Indians. It was, in fact, five o'clock, and I was under the greatest anxiety lest I should be obliged to return without the vanilla, or have to sleep at the farm, which would defer my intended departure on the next morning. I was almost mad with vexation.

At length an Indian, with a hoe in his hand, made his appearance. Brother, said I, holding out a dollar, shew me some vanilla, and this is yours. He coolly bade me follow him; and advancing a few steps through the underwood into a thicket, in which were a number of trees, he immediately climbed up one, threw down to me two cods of vanilla, perfectly ripe, and pointed out to me a branch on which several others were hanging, yet green, together with two faded flowers, of which the nectarium still

* *Monoecia polyadelphia.*

remained.

remained. I recognized it for an epidendrum. The form of the leaves, the stone, and the fruit, perfectly well described, the peculiar smell of the plant: every thing convinced me it was the real vanilla, in every thing corresponding with such I had seen at the house of Don Athenas, at Vera Cruz. All the trees of this little copse were covered with it. I saw a quantity of green fruit, but collected no more than six specimens of these, and four large cods, which were ripe. I caused the Indian afterwards to part from the root some of the scions which had sprung up. These I tied well together, wrapping up the whole in the leaves of an arum, which at their base are three feet wide. After thus packing a faggot, which weighed upwards of thirty pounds, I placed it in my large sack, which I fastened on the rump of my horse. I was so well satisfied with my Indian, that besides the gourd I promised him, I gave him in addition two reals. For his part, unwilling to be outdone in generosity, he ran to his hut, and brought me three other cods of vanilla.

Who now was more confused than my mulatto? for me, I was highly pleased with not having listened to him.

We again mounted our horses, and we made such good speed, that by nine in the evening we reached Guaxaca.

I directed my guide to make my best respects to his master, and repeat how much I held myself obliged to him. I gave him, for the use of the horses, six piastres, and two for his individual trouble, after which I again entered my inn, with the vanilla, without any one knowing what it was.

It was late, and I supped by myself. After supper, I desired my landlord and countryman to make out his account, and announced my departure on the next morning. He seemed greatly surprised at my intention, but answered, that he had no demand to make; that he had entertained me with great pleasure, as a countryman, but without any view of gain. I easily comprehended his drift, and, presenting him three dollars, enquired if that was sufficient. He still assumed that he had received me as a friend, and that I might pay him nothing if I pleased. To this I drily answered, that he, being a Frenchman, was capable of discerning, by my exterior manners, that I was not a person to be treated gratuitously by him; and that, moreover, his situation in life obliged him to sell his services to every one. I thought it right with this to add three more dollars to those I had before placed on the table, at the same time requesting him to prepare me a few provisions. When our host noticed the tone I assumed, with a satisfied look he placed the six dollars in his pocket, and in very polite terms returned me thanks. Shortly after he sent me what I had required.

I now shut myself up in my chamber, and passed a part of the night in examining and arranging all my plants in my boxes. Two of these were destined for the vanilla, which I marked, and mingled with a thousand other plants, collected at hazard. As while doing this I frequently opened and shut the boxes, my hostess, on hearing the noise, became exceedingly curious, and sought to satisfy her inquisitiveness, under pretence of making me a small present of chocolate. She therefore knocked three or four times at the door of my room, but I constantly objected to opening it, so that at last she was tired out, and decided on leaving the chocolate on a chair in the adjoining room.

I slept but a little time. By four in the morning my horses being come, I awakened mine host. His astonishment was at its height, for I had not apprized him of the measures I had taken. My cases and baggage were all laid on my cattle in an instant. I mounted on one of the horses, and obliged the topith to lead on the others before me at a good rate.

Day-light had not yet beamed on Guaxaca, when I set off. On account of my train I found the streets exceedingly long, for I was anxious to avoid examination, and the excitement of curiosity; at length by day break I gained the open country. The morning was remarkably cool. I struck my heels into the sides of my horse, and increased our pace. My horses turned out to be excellent ones, and speeded so well, that by half past seven we reached Atletta, whence, without halting for refreshment, I proceeded onwards to Sant Juan del Ré, occasionally alighting to gather plants.

On the road I met with a doctor, who, conversing on the objects of culture, informed me, that nopals had been transported into Castille, for the purpose of attempting the naturalization of the cochineal, but that the project failed, from which he drew the very wise conclusion, that it was impossible the culture of it should succeed any where but in the kingdom of Mexico. This anecdote, whether fabulous or true, was calculated notwithstanding, to give me at the time some uneasiness; but now, while writing this, that I am well assured of the fallacy of the assumption, I cannot but smile at the folly of those people who make deductions, which they generalize from circumstances true only in particular cases.

By then I entered Sant Juan del Ré, it was eleven o'clock. I was in hopes of purchasing here some cochineal, but the black alcalde not being at home, I determined to wait till his wife returned: she came in a little time, and I immediately asked her for four branches from her nopals; and without giving leisure for reflection, shewed her a dollar, which persuaded better than words: I at the same time enquired of her respecting a variety of matters, which I had either omitted to obtain information upon before, or which I thought might need comparison with what I had learnt at Guaxaca, though chiefly respecting the mixture of the sylvestre or wood cochineal, with the black or fine. She illustrated the different points I questioned her upon, and to my satisfaction; and permitted me to select four branches from the nopals, which I placed in a fifth box.

After taking a nap I set off precisely at noon, and again ascended the famous mountain La Costa, frequently casting back an anxious eye on the beautiful country I was about to leave. How numerous were the curious plants I beheld! How much did I regret my incapacity of carrying away specimens of all! I did however alight to pull up some of the bulbs of the lily of St. Jago, or *amaryllis fermosissima*. I collected six dozen of the roots, though with extraordinary difficulty, on account of their being a foot deep in the ground, and that, stiff and very hard as the soil was, I had nothing but a knife with which to remove it, while a vertical sun darted its noon-tide rays on my back. I likewise found a violet with a bulbous root like that of the lily, of which I dug up a dozen roots: I gathered, moreover, a hundred oxales (sorrels), with bulbous roots, *foliis octonatis pellatis ozatis*. I moreover gathered some seeds of a thistle, large as our artichoke plants; some of the fruit of a sort of medlar; some of the *Sabina juniperus*; and certain acorns large as our largest walnuts.

While thus endeavouring to dissipate the tiresomeness incidental on a long journey, I perceived that my muleteer had turned out of the king's highway, which topiths are expressly forbidden to do; and I was violently enraged at his conduct, promising, within myself, at least to withhold his trinkgilt, or drink money. However we began to descend by roads, very bad it is true, but which lessened our way by a league. I then allowed that my guide was not so much in the wrong, and was pacified. At the bottom of the slope I found the beautiful sage, with corn-rose flowers, which I had seen at Guaxaca: from this I extracted seeds, as well as from another variety with blue and highly beautiful flowers.

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While threading a narrow path cut out of the rock, I had a singular rencounter : it was of an Indian who was driving two hogs to Guaxaca. They were of monstrous size; and I was obliged to stand aside, in order to allow them to pass; while, in consequence, I was attentively looking at them, I observed, and not without a hearty laugh at the whim, that they had pumps, or rather boots on. What, said I to myself, a hog in pumps, while the poor Indian that drives them is barefoot ! The hogs had, really, on each of the joints of their parted hoof, a boot with a sole of strong leather; and the whole so neatly sewed, and fitting with such exactitude, that at first I thought them natural appendages belonging to the animal. It was in vain for me to puzzle my brain for the reason of such a whim, and I was fain to apply for information to the Indian. For him, he seemed to pity my ignorance, astonishment, and laughter; and in a very phlegmatic manner answered, that it was to prevent their becoming foot-sore. Reflection made the motive seem but reasonable, for the animals were so fat, and are naturally so lazy, that if they had not been booted, having a journey to make of five and twenty leagues, and should wound their feet, they would have fallen away, and even have remained on the road. When at dinner, at an after period, with the intendant of St. Domingo, on his asking me respecting the roads in Mexico, I felt a strong inclination of relating this fact, in order to qualify him to form himself an opinion; but as there was a large company at table, to whom I was unknown, I was fearful, on giving account of a circumstance so singular, to pass for an inventor of fables; I therefore merely answered his interrogation by telling him in general terms, that I found them very bad; and in good truth, though the road I was now travelling was that of Guatemala, and the only highway on which is transported the various produce of a valley, which extends four hundred and eighty leagues, I did not find thirty leagues of road on which a carriage could pass.

After a long journey of sixteen larger leagues, I again revisited my charming hamlet of Galiatitlan. I saluted it on my arrival full of gratitude, for its having first presented me with the delightful spectacle of a plantation of nopals. It was too late, and I was too much fatigued, to visit the Indian into whose grounds I had entered on my way to Guaxaca; I therefore thought only of getting my supper, and retiring to rest. I slept but little. I had judged it requisite to give air to my plants; and for the purpose placed my boxes, opened, in the court of the casa reale, and every half hour paid them a visit. In the intervals between I took a walk in the church-yard, which was at no great distance. A beautiful moon light shewed me the way; and with pleasure I collected the roots of amary uidas from the tomb. At this instant, calling to mind the Night Thoughts of Young, I said to myself, Is it then really consequent that reflexion on the immortality of the soul should give rise to melancholy, as the case with that gloomy doctor? By no means, but rather

Let us, while through this vale we speed,
Cull every flowret in our way.

At two in the morning, I again closed my cases, carried them in-doors, and laid down to sleep till dawn.

As soon as I awoke, I hastened to the garden of my Indian. The cochineal harvest had been gathered; and I merely took from him four plants of the nopal, which had already rooted, and for which I gave him six reals.

It is to be observed that I burthened myself with these nopals, and with four other plants which I collected at Sant Antonio de Los Cues, apparently from an excess of caution, and that I might not have any thing wherewith to blame myself: but how wise this caution will be seen; for of all the branches loaded with cochineal, which I had bought

bought at Guaxaca, and Sant Juan del Ré, and on which I placed my chief dependence, not one was preserved to the end of my voyage, as I had the affliction of seeing them all rot one after the other, and of being obliged to throw them into the sea while traversing the gulf of Mexico. It was to those plants on which I placed the least reliance that I had to ascribe the ultimate success of my project, as these were the only ones which survived the voyage, and which have multiplied.

The Indian who sold me the nopal plants was the same who let me my horses; and his son acted as my topith. This afforded me means to hold a very interesting conversation, and acquire considerable information respecting that culture, to which he paid his chief attention. It was this man who presented me with some of the fibrous net work of the cocoa, of which he informed me the nest for the cochineal was made: it was from him also I understood, and at his plantation that I saw, that the mother cochineals for the succeeding harvest are preserved in open air and on the same plant, and not as averred by the Abbé Raynal, and that even in his last addition, on detached branches put under shelter in the house. I made, as very natural, remark on hearing this, that I should have thought them liable to be destroyed by the rains; but this objection he set at rest, by the answer he gave, which was, that in the stormy season of the year, *Se tapan con petales*, they are sheltered under leaves.

At the plantation of this Indian I likewise, as I had done before in some of the church-yards, collected some buds of a beautiful *fyringa asperifoliis*, but they perished.

When on point of departure with his son we perceived near a fountain his young sister, who at that instant was fetching water. She was a lovely brunette, about nine or ten years of age, with blue eyes, and the most beautiful complexion. I had just before given her a real. She drew nigh her brother, and without uttering a syllable flit it into his hand. My poor brother, she no doubt reasoned, is now about to travel on foot over six weary leagues of ground for merely a wretched real, and which even my father puts in his pocket, and has but four tordillas and some pimento for his dinner. Suppose I give him this real, he will be able to fare better, and better be able to endure the tediousness of the way, and the burning heat of the sun. Such in short was the reflection I read in the expressive eyes, full of interest and compassion, of this amiable child, and in the look of gratitude the young lad directed at his sister. I was deeply affected by this little incident. Come hither, my child, said I. She came blushing and uneasy about the motive of my calling her. I gave her another real, which I bade her keep for herself. The little maid laughed with joy, took the real, and turned her back on me, without the slightest thanks; but what thanks were necessary? Did she not smile? Throughout the whole morning I amused myself with pleasing reflections on fraternal love; and this incident confirmed me in the idea I had ever entertained, that a tender affection for their brothers is not uncommon with females; and that it could not have been scenes like this which originated the observation of *rara concordia fratrum*. Incidents like these it is which render one disposed to love mankind; but how rare are they in large associations of the species! and where did I meet with this? Was it not among the steepest mountains, in the most distant parts of America, amid people little removed from the wild state of nature?

After proceeding three leagues on my way, I met a herd of swine, consisting of about sixty, all of them in new boots. Now, indeed, said I, accosting the Indian who was driving them along, I plainly see that this is not a mere whim, but a fashion, quite the fashion of the country: in truth, now all that these gentry want, to draw down not only admiration, but even the envy of their drivers, would be to make an addition to their
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dress of a cloak, hat, and ruffles; but all I could say failed of exciting a smile, for the Indian was of a most grave and serious turn of mind.

When I arrived at Atletlanca, I was obliged to go to the rector to change some gold: he appeared to me to have great partiality for this shining metal, and to be ready, if needed, to give me silver for all I had. He shewed me the stuffed skins of two animals, which he called tigers but which were just as much the skins of tigers, as of Mexican bears; of this I am satisfied, as at an after period I bought some of both the one and the other, these much smaller: those of the rector were six feet in length from head to tail, and two feet and a half in height; the head, face, hair, and teeth of them were similar to those of the cat; but the colour of the hair was that of the fawn, very bright, perfectly smooth, and without any longitudinal stripes, or ocellary * spots; these monstrous animals, said to be very ferocious and sanguinary, had been killed within two leagues of the village: would I could have borne them away with me! the rector would assuredly have parted with them for gold.

On dismissing my topith I gave him another real, as well because he was the brother of the sweet little Indian girl, as because he had conducted himself with propriety, and that on such occasions I seldom restricted myself to abiding by the regular prescriptions for drink money: these kind of people are commonly so wretched, and at the same time appeared to me so worthy, that I always considered a real or two extra not idly thrown away.

I again crossed the numerous windings of the river de las Vueltas, and again with the like impatience and vexation, but at the same time with less inconvenience, on account of being better mounted. I was unable however to reach Don Dominiquillo before night, where I again met with a jubilee and procession, for it had been ordained I think that from Paris to Mexico had I gone I should constantly see nothing else: this one I found interesting; the music of the charming *Salve Maria*, which I took down in notes, is really excellent; it was sung in chorus, the parts given in perfect unison, and was a piece of music altogether capable of pleasing even the most delicate.

When Justice and Peace, tired of living with mortals, by whom they daily were insulted, abandoned for ever their ungrateful hosts; Fame says, they took refuge in heaven, from whence they came. The rumour here was wrong: after wandering over the different portions of the globe, constantly vagabonds, and constantly abused, these celestial beings withdrew to a corner of North America; yes, the village of Don Dominiquillo. This little hamlet, simple in appearance, unadorned by the meretricious works of art, but rich, but charming from its site on the slope of a hill, at the confluence of the Rio Grande, and that of Las Vueltas, appeared to them worthy of their abode; and here I enjoyed the mild presence of these amiable but slighted powers.

The circumstance which called for this remark I shall relate: While I was at supper, I sent for a topith, with whom I had entered into contract for furnishing me with horses for Quicatlan; the knave had the address to cheat me of three piastres, without my noticing the fraud: his lively and seemingly ingenuous looks, and possibly the cares with which my head were filled, combined to lay me open to deception: the keeper of the casa reale, however, perceived the fraud, and pointed it out to me, but the topith was already out of sight with my money. In the mean time, after the procession, while walking in the public square, I saw two Indians carrying each of them a staff six feet long, on which they supported both their hands. I paid at first but little

* Ocellaire, in the original, from ocelli, little eyes an Italian word.

attention to this incident, till at length I heard a cry repeated thrice in the Mexican language, and three whistles. In an instant, my rogue of a guide presents himself, out of breath with running, and makes a number of low bows to the men with staffs, the distinctive marks of their office: the one was the *alcalde*, the other his assessor. As I saw them advancing towards me, I met them half way: in my presence, in a very deliberate manner, they interrogated the *topith* respecting the number of horses I had requested, and the price he had asked. He confessed the whole he had asked, except two reals. They next enquired of me, how much I had paid. I told them the exact sum. Turning next to the *topith*, they asked him, if he had shewn me the table of fares; and, on his confessing that he had never even mentioned it to me, the *alcalde* very severely, though at the same time without the least symptom of passion, reprimanded him; first, for having exacted more than the ordonnance prescribed; and secondly, for having stated the sum he had received at two reals less than what it really was. While they were speaking, I minutely observed, by help of the moon-light, the features of these simple officers: they exhibited not the least symptom of rage or indignation, not even the least emotion. Immutable as the law, they judged and decided by its rule, and never did senator, counsellor, or judge, with all their sumptuous paraphernalia of office, in silk and ermined robes, in scarlet or in black, in coronets, caps, or periwigs, never, I say, did either look more august or majestic than did, on this occasion, these poor and tattered Indians.

After convicting the culprit, on his own confession, they made him restore the whole sum he had received; after which, entering my apartment, where was a light, they attempted to calculate what was justly his due, but, little used to handle money, they were unable to succeed, and I was obliged to take on myself this task; when, having shewn to their satisfaction, that I had given three dollars and two reals more than I should have done to the *topith*, the *alcalde* restored them to me, and gave the remainder to the *topith*, enjoining him to have his horses ready at the hour appointed. I was dumb with admiration. I thought myself in a dream; a judgment so unartificial, so speedy, so perfectly equitable, was what I could not conceive: actuated by the enthusiasm by which I was filled, I gave the *casero*, by whose instituting the process I had enjoyed this interesting spectacle, a dollar, and begged the *alcalde* to keep in his own hands the three dollars and two reals, for the purpose of distributing them among the poor of the hamlet. I would willingly have given, had I means, a thousand piasters, to have perpetuated the memory of this honourable act of justice; for it cannot be disguised, that the best means of enforcing among mankind the practice of wisdom and virtue is to honour and reward even the most insignificant actions which denote its existence: men always act from some interested motive; and what motive can be regarded as more valuable than that which has for its end the esteem of one's fellow creatures and posterity? Let us then but applaud good actions, and those same applauses will prove the seeds of others.

With these pleasing fancies I retired to rest, and sweet was the slumber I enjoyed; but at two in the morning, solicitous of making a long day, I awoke my *topith*: the rogue was out of temper, which I noticed the most plainly at the passage of *Rio Grande*. In this river I saw an animal swimming, which I took to be either a crocodile or a cayman, though its muzzle did not yet seem to be so long as theirs. I enquired what animal it was, but instead of informing me, in order to prevent the gratification I might receive from satisfying my curiosity by a more minute examination, the malicious rogue picked up a stone, and threw it with such nicety, that, though at eighty paces distant,

distant, he struck it on the head, which occasioned it to dive under water, and it did not appear again. At dinner he met with his reward, as I neither gave him a meal, nor money to buy drink, as I was else accustomed to do.

I reached Quicatlan at nine, and after purchasing a provision of bread, left that place at ten, passing, without stopping, by the guard-house: the chief of it, whose good-will I had insured on passing before, whether on this account, whether owing to his being employed in counting the mules laden for Guaxaca, paid no attention to mine, but made a sign to my topith to proceed without unloading his cases: I squeezed his hand in token of gratitude, and clapped spurs into my horse.

But little after noon, the sun almost at its zenith, and vertical above me, I had to climb the terrible and fatiguing mountain Aquietepec; I found it necessary, in order to bear up against the distress occasioned by the toil, and the heat of the day, to seek revivification from advertence to my worthy and faithful friends in France; this was my ordinary practice; perpetually were they present to my imagination, and often did I hold converse with them. Oh, could you only see me here, said I, and with what formidable difficulties I have to contend, then, partners of my heart, then would you learn the cost at which I seek to merit your esteem.

At length I attained the summit of the mountain, by half past one, as I found by the clock then striking at Quicatlan, the sound of which I still distinguished, and by three had attained its foot, on the banks of the Rio Grande: here it was I first saw the sylvestre cochineal on a thorny cactus, with leaves nearly round: I took away two articulations, which I preserved for a long time at sea, but which at last decayed.

I had laid in a store of bread, but this was not enough. I recollected the bad fare I had to expect if I depended on the supply of the hamlet whither I was journeying: fortunately I saw an Indian who had just been fishing; in answer to my interrogatory, of what success he had experienced, I learnt he had caught a trout; but this pretended trout turned out to be a species of mullet, which however was delicious.

While changing horses at Aquietepec, I gathered from the margin of a fountain a *paneratum foliis lingalatis strictissimis**, which I continue to cultivate at Port au Prince; but on this occasion, my curiosity, or rather my imprudence (for I made use in raising the plant of my hands) was nigh costing me dear; a serpent, four feet long, of a yellowish colour, issued from the ground I had just been disturbing, but without doing me the least injury, it glided under some other plants: this serpent was the first that I met with in my botanical collections in North America. Farther on, on crossing the Rio Grande, I saw a liliaceous plant, less eminent, but which was similar to that I had found on the brink of the fountain of Aquietepec.

I did not reach Los Cues before half past nine at night; I was dying of hunger, and my fish was most welcome: it was so large even that I was enabled to spare a part for my topith, who had been able to procure nothing better throughout the whole hamlet than a couple of tordillas of blue maize, so much resembling pieces of slate in their appearance, that I was obliged to bite them, in order to be convinced of the contrary: as sauce for these he had some little chili.

The next day, Trinity Sunday, I proposed, as it would be the last time I should meet with plantations of nopals, to make some fresh purchases of nopal and cochineal: informed of the existence of them at this place by my Franciscan, on seeking I readily found them; nay, there was one close even to the house at which I lodged: this, however, did not appear to have been sown, so thinly was the cochineal spread over

* *Hexandria monogynia.*

the leaves. I then entered another, in which were many young plants that had taken root, and were loaded with fine cochineal. I was very solicitous of procuring some of these, but the owner was at mafs. In a third I met with some women, who consented to sell me eight branches richly loaded for ten reals: this was rather dear, especially when compared with what my good negro of Guaxaca had asked me; but on my expressing such to be my opinion, they remarked to me, that there was upon them at least twelve ounces of cochineal, and, on the other hand, these were what I wanted. I saw in addition, the plantation of a poor cultivator who was drying the seeds of the cactus, with which to make bread: the garden had not been planted more than fifteen months, and from him for six reals I bought as many small rooted plants. He was willing even to have spared me a greater number, and at this rate even would gladly have parted with his whole garden; but I was now most amply supplied, and had great difficulty to stow my last purchase.

I however succeeded and set off with my cafes, mounted on an afs, which transported me to Santo Antonio by noon, according to the estimation I made by a singular means. I noticed that the ears of my afs, at every turn, whether eastward or westward, to the north or the south, constantly both the one and the other threw their shadow on the earth, at an equal distance from the head and body, the shade of which latter was immediately under the belly of the animal: followed that the sun must be at its zenith, and consequently that the hour was noon. This meridian, so novel and so whimsical, made me laugh much, and for an instant consigned to oblivion my cares and jading ride.

At San Sebastiano I swallowed two new-laid eggs, and immediately set off again with excellent horses: the one I rode, however, was difficult to manage, and had no bridle, a circumstance to which I failed to pay attention on setting off, or till I had left the village: every thing, however, went on well until I reached Santo Antonio: thrice had I alighted to collect seeds from plants, and thrice had I again quietly mounted; but the fourth time, the restive beast rising on its hind legs, struck at me on the stomach with the fore ones, and with such force as to fell me to the ground; not content, he spurned again his hind legs at me, and galloped away at full speed. For an instant I thought all was over with me, and far as the little power of reflection allowed, which remained with me, I was anxious only for my dear cochineal. I dreaded lest it would yet remain buried in Mexico, and be for ever lost to my country: the thought went near to kill me; however, resuming, after a few instants, the faculty of breathing, and my stomach by degrees recovering its tone, I gathered that I did not immediately need extreme unction. Collecting strength, I rose, though with great difficulty, and drew as a conclusion from the incident, that a botanist should travel on foot.

I took no trouble about the horse. It carried away not any of my property, and should I have recovered, I should not have mounted him again: so giving him heartily to the devil, I continued my journey on foot, at a very gentle pace, quit for a few grazes and a torn jacket.

In vain did I call after my topith, who travelled at a brisk rate before me; and when I arrived at San Francisco, I found he had already been there an hour. I related to him what had happened, and was apprehensive he might insist on my paying for the runaway; but he was satisfied with merely asking for a note, which might account for his not taking it back, which I gave him, stating the restiveness of the animal, and the want of a bridle, as the cause. I moreover presented my guide with four reals for himself.

The

The next day I took care to be provided with gentler horses, and more complete furniture, and by ten o'clock arrived in sight of Tecuacan. In the course of my journey, I remarked a nicotiana (tobacco plant) with narrow and pointed leaves, which was conspicuous as a weed among the corn of this beautiful plain.

I was anxious to pass round Tecuacan, as I had done on my way coming; but with all my baggage this was not practicable, and the topith, in short, flatly refused: it was necessary therefore I should travel through it: the town appeared to me a desert, and I compared it to those enchanted cities the work of genii, when a magician of the most formidable kind, in my eyes, made his appearance before me, and drove away the pleasing ideas of enchantment. This magician was no other than a stout, sharking customs officer, mounted on an excellent horse, his saddle bow beset, both in front and behind, with pistols. This redoubted champion advancing, summoned me, in the King's name, to return to the customs house. I answered to him, in a tone of voice which denoted vexation, that I certainly should pay all the respect due to the King's orders; but that if he had had the least notion of civility, he would not have suffered me to have rode through the whole of the town merely for the pleasure of making me return. However high the tone I assumed, my heart was chilled with fear; the word customs house turned my brain, and I gave up all for lost. I shall have, said I, to open all my cases, my pilferings will all be exposed; there may be laws which prohibit the transport of cochineal on nopals; nay, this ought necessarily to form a part of the policy and ordonnances of this people, one so anxious to maintain the exclusive possession of this commerce. Should this be the case, adieu to all my treasures, all will be ravished from me, and confiscated: what grief for me! what shame! cursed rencounter! unlucky travels!

I was in a dreadful state, though it must be allowed, that at times danger affords resources which are gathered merely from its presence. On reaching the customs house, I instantly determined on my plan: composing my countenance, therefore, I entered with an easy air, and expressed much discontent at the trouble which had thus unnecessarily been occasioned me. I found two Spaniards in the office, one of whom, the director, lessened my colour by the affable and prepossessing manner in which he received me. I told him that I was a botanist, that I had been employed in collecting medicinal plants throughout the whole province, with which my trunks were full, and that I had with me nothing else. I added, moreover, that I begged they would satisfy themselves on this head, and proceed through the examination as speedily as possible, as I was solicitous of reaching Vera Cruz for the purpose of going on ship board.

The director said that this was enough, and entered into the most friendly conversation with me; however I notwithstanding caused my boxes to be opened, although against his inclination, for the purpose of satisfying him, and out of bravado towards his deputy, who appeared to be inquisitive and suspicious. On looking over the cases, in which, among a variety of herbs and roots, with which he was altogether unacquainted, was the vanilla which was equally unknown to him; he shrugged up his shoulders, and smiled. I opened others which contained cochineal, covered and mingled with other plants: *aquí sta grana*,—this is cochineal, said he, apparently with surprise, but at the same time, with an air of indifference which argued nothing displeasing. In my notice of his observation, I seemed equally indifferent. He afterwards noticed the double bottoms, and fancied for an instant he had caught his bird, signifying as much by a glance, which at the same time seemed to hint that he could shut his eyes occasionally to what he could not see without injuring; but, rendered bold by the assurance I had acquired, that no objection would be taken to my cochineal,
I raised

I raised the bottoms, partitions, and the pieces of wood, which separated the plants, when my nopals were distinguished among other plants, carefully folded in fine white paper. What are these nopals for, this cochineal? For an unguent. For what malady? The gout. Ah ah! do but see, exclaimed he then, laughed heartily as he pointed out among my collection the nuts of the most common fruits of the country, and seeds even of its most despised herbs.

The director now obliged me to shut all my cases; before I did this, I picked up even the smallest leaves which had fallen, but with so much care, that they could entertain not the slightest doubt of my placing on them a value, far greater than on the cochineal: they could not indeed help admiring to see a Frenchman come from such a distance to collect some of the meanest herbs of the country; and frankly confessed, that no Spaniard could be found possessed of equal resolution. Walking in the court, I saw drying in the sun the fruit of a certain cactus, not larger than currants: in turn, I enquired what use it was applied to? To making of tarts, was the answer. He invited me moreover to taste them: I found them delicious, and preserved some of the grains.

From all he had seen the director concluded within himself, that I was an eminent doctor, and in consequence entreated me to visit a friend of his who was ill: I told him, that unless His Majesty himself required my assistance, I could on no account procrastinate my stay: at the same time I enquired of him to whom I had to address myself to obtain horses: he informed me I must apply to the alcalde-mayor. This circumstance displeased me. I apprehended a second inquisition, and could not hope perpetually to be favoured as I had hitherto been, by good fortune: however, no choice was left, nor could I draw back; I therefore paid him a visit, and found him employed with a man dressed in black, whom at first I mistook for the alcalde himself. It was not long however before I was undeceived; Don Marcos Chopin, Cavallero de Sant Jago, Gobernador de Tecuacan, alcalde-mayor informed me in person, that it was he to whom I had to address myself; he conversed with me with an affability, a suavity of manners which could not be surpassed by the most amiable among our French gentry, and immediately directed an alguazil to go in search of horses for me. I entreated that they might be gentle, and with good bridles, as a cause of which injunction I related the adventure which had befallen me: he laughed heartily at my narrative; and observed that I must in this case have been but an indifferent horseman. Pardon me, Senor, replied I, but my horse was unusually restive.

By accident a mirror happened to hang before me, and seeing myself in it, dirty and with my clothes torn, I could not but feel amazement and high gratification at the little difficulty I had hitherto met with. In France, taken for an highwayman, I should have been stopped by the police: in Mexico I was not even asked for my passport; I scarcely knew to what I had to ascribe this distinction; possibly in a small degree it is to be attributed to the inertia and negligence of the Spanish people, but at the same time much liberality and nobleness of mind are apparent in their custom of not suffering themselves to be influenced towards, nor their confidence diminished in, a man and a traveller, because of the garb he wears: their conduct moreover may be owing, and principally perhaps, to the officers of the interior relying on the governors of the frontier cities and towns for care that no one be admitted into the kingdom but Spaniards, or individuals furnished with regular passports.

However this may be, the alcalde-mayor behaved to me with the same politeness as if I had been dressed in the nicest manner; he even played me a little trick, which, no doubt, afforded him considerable amusement, and which made me laugh myself: he sent me to the farmer of the tobacco duty, whom he represented to me as being ill,
and

and at the same time a Frenchman, two motives for my rendering him whatever assistance my art was capable of. In vain did I decline going, on pretence that not pertaining to the college of physicians in New Spain, the consequences of such a procedure on my part might injure me; he insisted and proffered to take all responsibility on himself: but what was my astonishment, on complying with the wish of the governor, at finding my dear countryman plump as a partridge, and with a complexion ruddy as the morn: I was not able however to draw from him a single word of French: and when I explained to him the nature of my visit, he answered me coolly in Spanish, that the alcalde might keep his physic and physicians to himself; as for his part he was in want neither of the one nor the other. I was much pleased with having to render account to the governor of the success of my mission: he received me with less kindness than on the former occasion; but this was merely to hide the trick, he laughing all the while in his sleeve: he thought me his dupe this: however I frankly forgave, on reflecting how much more so he was mine.

I afterwards went to his secretary to beg him to change me some gold, and this I perceived had a good effect; for in this, as in my dear country, gold is closely cherished, and gives much consequence to those who are its masters.

Soon as it was known I had gold, I was well enough dressed, and the secretary received me in a manner no less courteous than the alcalde. I found him a man of sense, and who distinguished the value of study after the French manner: he enquired how many academies we had; and when I informed him that, besides five or six in the capital, we had more than twenty in the provinces, he was wrapt in astonishment, and mute with wonder. Happy country! he exclaimed; thrice happy country! He was in the right. In what other country do the arts, does science flourish in the same degree? Where else is truth and knowledge of every description so fully placed within the reach of all! What resources does Paris furnish as well to the inquisitive who merely skim the surface, as to the studious who seek for perfect acquaintance with truth! Public and private libraries, academies, societies of amateurs in which literature is cultivated, models, chefs d'œuvres of every kind, these are all found in the capital of France, and found but there alone. Does one wish to estimate the value of these? Let us cast our eyes over the neighbouring nations; these, though competitors, are obliged to yield us the palm: and however disposed to give their due to them on the score of their individual merits, a Frenchman placed in any of them sighs for his darling home.

From the secretary I went to the alguazil, who was to furnish me with horses; and not choosing to leave the spot until I had seen them, I sent word to the director who had invited me to dine with him, not to wait. I had a trifle served up for me, which I swallowed with good appetite, but of which I should have partaken with more zest in any other situation; the reason this: the alguazil chanced to be the jailor of the royal prison, so that I actually took my meal between two wickets, surrounded by guards, in a place whose only decorations were bundles of keys, locks and chains; a place where I heard incessant moans and lamentations; and where all the time I stayed, I was witness to the tears of a multitude of poor Indians, who had flocked hither to comfort a father or a friend.

As soon as the horses arrived, I made all haste to the customs house to load my effects. The director reproached me, yet kindly, for not dining with him, and repeated his urgent entreaties, that I would call on his sick friend: he is, added he, on your road at four leagues from here; and his name Don Joachim Armoral de Castilla: Great God! exclaimed I, what turn out of my way for the sake of a man who treated me
with

with such indignity? Heaven forbid! Upon this I recounted the humiliating refusal of this gentleman to see me, and the rest of my adventure at his house. I however added, that, out of respect individually to the director himself, I would yet consent to prescribe for his complaint at Tecuacan, and wait for him there, provided the director would send for him: but, as for ever setting foot again on his threshold, it was that to which I never could consent. The director was confounded and mortified, and made me a hundred excuses for the sick man, concluding with abandoning his cause altogether, and persisting from further persuasion. Thus had I my turn; and without being actually a physician myself, physic was revenged for the slight it had received in my person. At length I departed, escorted by the guards belonging to the tobacco farm, as far as the suburbs, either to do me honour, or, which is most likely, to be sure I took the road to Vera Cruz.

I now was happy as if I had escaped from the galleys, and breathed with freedom; but I also made such use of my liberty, that I was soon at a distance, spite of the extreme heat of the day, reaching Chapulco by four in the afternoon. The great heat and extreme thirst induced me again to drink of the water from the river Tecuacan, and my draught was followed by the same effect which I had experienced before. I enjoyed this day a sight perfectly new to me, and exceedingly singular; it was a mountain of snow, situate within the Torrid Zone. Orissava, on my passing it this time, was perfectly free from clouds, and I had an unmolested view of its mighty mass, though from a distance of ten leagues. Its form seen from this spot is that of a sugar-loaf, and appears but a quarter of a league from Chapulco. It is inconceivable, notwithstanding the extreme warmth of the atmosphere where I was, what pleasure I received from the sight of this frozen mountain; it seemed even to cool and revive me: my very mouth, as is said, watered at seeing it, and I felt almost persuaded I could have swallowed the whole, if it were but within my grasp.

I presented myself immediately before the alcalde, whose house, according to custom, fronted the prison. He caused his people to go in search of horses for me, and, as none were readily to be found, he was on the point of ordering men for transport of my luggage. Eight Indians, each laden with about two hundred weight, would have been equal to the task, and have carried it for the same price paid for beasts of burthen. The idea appeared to me shocking; I intreated the alcalde therefore to have patience; I would in fact rather have halted a week than be witness of so sad, so humiliating a spectacle, in my esteem, for any human being. At length asses were obtained for carrying my boxes, and for myself a horse, I paid as customary, before hand, and ordered all to be in readiness to set off next morning by three.

After these precautions, I took a walk in the village, where I enjoyed a coolness as pleasant as if in Europe. I entered the grounds of a worthy Indian: the garden was full of pear trees, and from these I gathered and ate about a dozen pears, smaller than and not equally good with the *rouffelet*. In another garden I saw a species of cherries called *cappuline*, the stones of which I preserved: in a third, I was shewn silk worms; and the good folks were astonished to find that these insects were known to me. After my walk, I returned to my inn, where I supped off a meagre fowl; and opening all my trunks to give air to the cochineals, I laid down to rest; but on what do you imagine? A hundred times shall the reader guess, and yet be wide of the truth; it was on the old gate of a prison. These gates are made in the same manner as the gratings to the hold of a ship: and such a gate or grating was the only bedstead the *casa reale* could boast. I might here be said with reason to be fluttering about the

flame, and was full of causeless apprehension lest I should burn my wings; the thought reminded me of the verse of Marini.

Corre la vaga, farfall' al chiaro lume.

Still, after chafing from their usurped territory the gloomy thoughts which haunted my brain, and committing myself to Providence, I sunk into a slumber, and, bad as my bed, enjoyed refreshing rest.

I was wakened at the hour I appointed in the morning by the severity of the cold. I determined on walking for a time to keep myself warm, but as day-light appeared, I bestrode my Rosinante to rest my legs. Oh, what a number of rare and curious plants did I again behold! *Sed omnes illætrymabiles urgentur longa nocte.* At the summit of the mountain I met with the three litters of a Spaniard of some rank. The two first were occupied by women and children, the third by himself alone: notwithstanding the extreme acclivity of the mountain, he had ascended it in this manner from the side whence he came.

This morning the mountain Orissava, being again enveloped in clouds, was not visible.

I arrived at Aquulingo at noon, and left it an hour afterwards, but at a slow rate. I was solicitous of not reaching Orissava before night, not only that I might escape search, but to avoid being consulted on their maladies by the guards; however, what is predestined must have its course.

I reached the town as I intended at night: the guard-house on the right was shut up, and I hoped to pass without any mischance: but there was another on the left which I had not remarked. My horse was stopped by the bridge; a new alarm, though now not so lively as that I had experienced at Tecuacan. I had become better accustomed to such events; I halted, and began with my customary peroration: Gentlemen, I am a botanist, I have nothing but herbs, nothing which is contraband. I was now interrupted by the chief of the guard, who clasped me in his arms, and exclaimed, Ah, Senor! and is it indeed you! you have long been gone, where do you come from? Angel sure from heaven! you it was who snatched from the hands of death the chief of the other guard-house, for God's sake deign to visit my poor wife. It will readily be conjectured from this accost, that my boxes would need no searching, but in turn I must necessarily visit the sick person. She was a young woman, reduced by that dreadful disorder which has been said to derive its origin from America, to the very last extremity: this I did not conceal from her husband and parents, at the same time declaring what the malady was; for it is so common in this country, that the mention of it never gives offence. I ordered some palliatives, and promised to return; after reasoning in a manner which enchanted all who were present, I was led back to my horse, passing, no doubt, for a most extraordinary personage. My vanity was not excited by this, for grief alone had possession of my faculties, as I reflected on the dreadful effects of this formidable malady.

The next day I thought only of my departure, but being detained, owing to the negligence of the alguazil, I had occasion to pass by a shop where I saw some very handsome Asiatic tigers' skins; I purchased four for housings for horses, which I meant to send to my father, and two small skins of tiger cats, fit for making muffs for women, which I intended for my sister; but being injured by mites, I was obliged to sell both the one and the other, and was thus deprived of the pleasure of presenting to my dear parents these intended tributes of my gratitude and affection. I sold them

at the rate of a piafter a-piece at Port au Prince; and one with another they cost me four reals.

From Oriffava I proceeded to Villa de Cordova, which I reached by noon, after having had my trunks examined at the gate, but in a careless manner. I made a very indifferent dinner in a very indifferent inn; but I saw there a singular painting: it represented a Spanish youth at dinner at that inn, and behind him a young negro, who, with a loaded pistol, was amusing himself in shooting at a painting of Christ suspended from the wall: but wonderful to behold! from the wound, so great a quantity of blood issued, as to fill a large tub. The whole of this happened in this very inn, at least, if reliance could be placed on the asseverations of my hostess, who affirmed it with the most solemn oaths. I did not take the trouble to contradict her, but coolly enquired what she had done with such a large quantity of blood? This she could not answer.

I left her for the purpose of hiring horses, and was able to obtain them upon no other condition than the promise of a piafter to the alguazil of the district: it was then so late that I could not arrive at San Severo before the close of day. At this place I alighted at the gours, where I had lodged before on coming; my first care was to urge him to procure horses for me, as owing to the darkness of the night, I could have no chance myself of success, especially considering the numerous windings of the pueblo, the houses of which are as it were buried in thickets. I promised mine host, if he would procure me them, a couple of dollars; but the idle scoundrel would not budge an inch, though to earn before he retired to rest more money perhaps than he had gained in the whole preceding week.

Nothing could exceed the ignorance, the folly, and the pride of this fellow and his brothers. They laughed out like idiots at seeing me bring back nothing but plants, and at the fancy that for matters of such little value I should have daily exposed myself to the risk of perishing of hunger and fatigue.

I was in consequence obliged to go myself to the alcalde, groping my way through the bushes. The alcalde was a negro whom I found in a sick state; I entreated his wife to interest herself in my behalf, and gave her six reals, with promise of an additional remuneration in case of success; but whether owing to pride or idleness, when some hours after I returned, the alcalde informed me there were no horses to be had. I was in a violent rage, and suspected strongly that the idle fellow had not even given himself the trouble to enquire: in order to convince myself therefore, I desired the woman to return me the six reals I had given her, with which without any hesitation she complied. This conduct I regarded as shewing much good faith and delicacy. Good faith, inasmuch as it would not have been difficult for her to have maintained that she had really endeavoured to get horses; and delicacy, seeing she might think she had no right to keep a sum of money which had been given her for a purpose she had not effected.

At length I was obliged to return to my lame negro*: he consented readily to take me to La Punta, but I wished to go as far as Calabaca: he swore he would take me no farther than La Punta; and for my part, I swore to myself in silence that, if I could not find horses at that place, I would make him go on to Calabaca.

We did not depart till day-break. The whole road in the gorge we traversed from Oriffava to this place is marked by a cut, a hundred and fifty fathoms broad, anciently intersected by small forts, redoubts, and other strong buildings, the vestiges of which,

* This relates to some antecedent passage in the narrative, which is lost.

in masonry, are still to be seen. This is one entrance into Mexico, which formerly was more frequented than is now the road which leads from Vera Cruz to Jalappa. At the square where, near these ancient redoubts, the guard-houses for tobacco are constructed, I was again visited three times in the course of the morning, and was unmercifully obliged to open all my cases; but I have no cause of complaint; for to this rigorous conduct it is that I was indebted for the preservation of the major part of my cochineals.

On this occasion it was that I perceived a species of moth, which having made itself a kind of nest of their cottony down, committed a dreadful ravage among my insects. I was shocked at the loss I had sustained, and halted to cleanse my nopals from these murderers, an operation which cost me upwards of an hour.

While thus occupied, one of the officers of the guard, who recognized the cochineal, advanced in a familiar manner, observing I must certainly be fond of travelling, since I could choose to go so far to obtain what might be had at Vera Cruz. I observed to him that the species was not the same, and that this alone was the only one proper to use in unguents for the gout. On his part, he insisted on the contrary, and assumed that with this matter he was much better acquainted than me: I on my part, was obstinate, and maintained my opinion as long as I thought necessary to encourage his misconception as to my real objects, and at last I gave up to him, promising to follow his advice; there was, no doubt, abundant field for laughter in the folly and impudence of this ignorant chap; but I had special reason for keeping my countenance, and merely stored on the occasion this observation: that ignorance, silly pride, and self-conceit, are constant companions.

I arrived at La Punta about ten o'clock. The Spaniards and Indians, all in their holiday cloaths, were flocking hither from every part of the country. It happened to be the festival of the Holy Sacrament; the most solemn of all in Spain. They were about to begin the procession in the square planted with *plumeria*, a species of jessamine, with flowers of a yellow, red, white, nay of almost all shades of colours. I repaired thither, and found there had been a gallery of verdure constructed by means of the leaves of plantains, through which the procession advanced. I made one in it, and afterwards went to breakfast with my former hosts.

At her house I found an Indian alcalde, whom I recognized by his black staff, the distinguishing mark of his office. I begged of him to obtain horses for me, but notwithstanding the most diligent search, there were none to be had. Why, said he, do not the same horses take you forward to Calabaca? Why did not the alcalde of San Severo, give such orders to the negro who brought you hither? I had no time to answer; a score of Indian voices remarked, *ob' é su nacion*: Their insinuation was, that the alcalde himself being a negro, favoured those of his own country. After this, I was enabled to obtain a hearing. I represented that though I had offered six reals to the alcalde of San Severo, as an inducement for him to procure horses for me as far as Calabaca, neither my money nor my entreaties were of any avail. At these words my Indian knits his brow, sends for the topith, and commands him to carry me forward to Calabaca. The people applaud the determination, delighted at seeing a negro punished. The black however does not so soon acknowledge defeat; he asserts that the alcalde has no jurisdiction over any but the inhabitants of his own district, and that, for his part, belonging to another, he was by no means under his controul. The countenance of the alcalde at this afforded an admirable sight; his looks denoted passion, and could his eyes have darted lightning, they would have struck the negro

to the earth. Come with me Senor, said he, taking me by the hand, we shall let this scoundrel see (this *picaro*) whether or no my orders go for ought, while he is in my jurisdiction. He then led me to the house of the lieutenant of the alcalde-mayor, whither he ordered the negro to follow, and was accompanied by all the crowd. While the alcalde was making his report, I drew the rector aside, and after making him my friend, by proposing to him to give me change for some gold, of which he appeared to me very covetous, I entreated him to interest himself in the matter: this he promised me, and drawing the lieutenant on one side, he pointed out to him, with much energy, that the ordonnances of the King of Spain are precise, in directing officers to render assistance and service to all travellers, and that there are no injunctions which ought to be more rigidly enforced. This remonstrance had the desired effect; the lieutenant enquired how many horses I wanted, whither I was going, and what I offered? I saw the bent of these very judicious questions, and that my answer would shortly occasion a decision. I therefore stated, that I wanted five horses for Calabaca, seven leagues distant, and that I was willing to pay nine piasters. My offer appeared so handsome, that it excited a general burst of admiration. The audience raised their hands to heaven, looked at each other, and finished by murmuring at the obstinacy of the negro, who still made objection to going farther. The alcalde, however, threatening to cast him into prison, and cause me to be forwarded by another topith, he at length agreed, and withdrew, pursued by the hootings and hisses of the Indians. This, however, was not all; the lieutenant caused him to be brought back, and requested me, in his presence, if any injury or ill conduct was shewn towards me on the road, to advise him of it immediately. The recommendation was applauded, and drew forth fresh hootings of the insolent topith. This scene convinced me of the truth of what I had read in the work of the Abbé Raynal, respecting the jealousy and animosity subsisting between the Indians and negroes in this country.

I departed from La Punta at two in the afternoon, and had to travel seven tedious leagues by a very bad road. The unfortunate negro, desirous of shortening the way, lengthened our journey still one league more, for after reaching a ford, in a river which empties itself into the Rio de la Punta, he found it impassable, and we were consequently obliged to return. Above the junction of the two rivers, I again noticed the frightful passage over the wretched bridge, and the tremendous fosse in the rock through which this deep and rapid river glides, foaming in many a curve. After crossing this bridge, we proceeded at full gallop over the savannahs of the plain on which we entered. I had some words with the negro; but as I assumed a commanding tone, he was soon calm, and in spite of all the torrent beds (*arroyas*), we reached Monte Calabaca by eight o'clock in the evening.

I lost a milled quadruple from my purse on this stage; it had, no doubt, got out of my purse into the waistcoat pocket, and thence through some opening had fallen on the plain of sand we had now entered upon. I regretted it, as it was lost to every body. Alas! said I to myself, were it not far better I had given it to the beautiful Indian of Orissava, or rather, to the kind and worthy family I had seen at Aquulingo.

At the village of Calabaca I again beheld my old fox of a host, much astonished at seeing me, whom he had observed going on foot, return on horseback, and with such a train. I asked for horses, which at first he told me it was impossible to procure, that there were none, that none were at hand. He used many other contradictory and frivolous excuses for not supplying me. The end of all this I saw plainly was only extortion, and at length I obtained what I wanted; though for six horses to Vera Cruz,

a distance

a distance of eighteen leagues, he exacted no less than twenty dollars. The horses indeed were excellent.

Before I left the place I cast a glance about me. The whole landscape was changed in the interval of a fortnight. The rains that had fallen, in lieu of barrenness and perfect nudity, had occasioned the display of the most charming and lively verdure. The whole green carpet before me, and every shrub, were enamelled with flowers, while innumerable birds gave, by their pleasing notes, a charming animation to nature. I here purchased a nest of six beautiful green parroquets, with blue wings, no larger than sparrows. I brought them in safety to Vera Cruz, in a calabash suspended from my saddle, but they perished at sea.

We travelled the first stage at a brisk rate, and reached the miserable rancho of the old and ugly negress, at which I had halted on leaving Vera Cruz. Fatigued, harassed, and half-dying with hunger, I entreated of her four eggs that I saw; but she would spare me only two. She had brandy, but no wine, so that I made myself a kind of lemonade. This was all I could get for my sorry dinner.

As an additional vexation, I was subjected to a thousand ridiculous questions from this talkative and impertinent woman, and to raillery such as were admissible only from an equal. I was nearly out of patience with her, but rightly reckoned that contempt was the only return due from me to such a creature.

I took much pains, in course of my long excursion, in examining the character of the Africans and Americans, and marked distinctions highly favourable to the latter, notwithstanding their nearly similar condition in life under the dominion of Spain.

The African constantly appeared to me to be proud, passionate, vindictive, and effeminate, base, and intolerably idle. The Mexican, on the contrary, is phlegmatic, mild, and submissive, faithful and laborious. His humility is in no respect allied to meanness. The negro is humble from fear alone, the Indian from reflection, and oftentimes from attachment, for he is truly as partial to Spaniards as abhorrent of negroes. With the former he frequently intermarries, but never with the latter. The negroes are spies over the conduct of the Indians, and in their charges are almost always calumniators, either with a wish of flattering their masters, or from jealousy of their fellow-servants: similar to those dogs which guard the weak and timid flock, they avenge themselves for the sufferings they endure from their master on those subject to their vengeance, and frequently tear them to pieces.

The Americans have that natural benignity of soul which makes them prepossessing in their manners, and hospitable to every one. I met on my way with a thousand Indians: their salute was made when yet at a distance: their gratulation always uttered unaffectedly, at the very instant of our meeting; and how thankful ought I not to be for the constantly kind reception I experienced from them. For the negroes, scarcely would they deign to bow on my passing; and at the last place that I halted at, and elsewhere, how did I prove their want of complaisance to travellers. The first in following their employments, stray ten and even fifteen leagues from their hamlets, and carry enormous loads; but never did I meet a single negro on foot, or carrying the lightest burthen.

The dream of certain authors that the liberty of America will be the institution of a negro, is surely chimerical. Liberty is indeed a blessing, by whatever hand bestowed; but, that an African, a voluntary slave, a man of the most depraved nature, the scoff even of his equals, and thrown like the foam of the sea on the shores of America, — that such a vile, wicked, and cowardly people, should appreciate justly the value of liberty,

liberty, and so far lose their known illiberality as to share its benefits with their masters, is what cannot be expected. No; should a revolution happen, I can far more readily believe it will proceed from a people, mild indeed, but endowed with sense; a people who still occupy the soil on which their ancestors lived free, who still hold this tradition, and whose temper, soured at last by the indignities to which they are subject, may break their yoke in pieces, and disdain their forced subjection. The negro by no means possesses that energy of mind, nor that love for his country, which are the origin of great enterprizes; his heart, essentially corrupt, and dastardized by interest and debauchery, is incapable of sublime feeling, as his soul of grand conceptions. True bravery exists only in the worthy soul; and who can boast a more noble soul, one consequently susceptible of real courage, than the inhabitant of America; so little yet removed from the pristine state of nature? Let then the Indian unfold the banners of freedom. This prospect most delights me. This is my view of futurity.

After these reflections, suggested to me by circumstances, I reverted to those which more immediately affected myself. I had ample room for congratulating myself at having reached the last day of a journey so interesting, and at seeing it thus crowned with the most complete success, despite of two viceroys, six governors, thirty alcaldes, and twelve hundred customs-guards; still, in midst of my self-gratulation, two gnawing worms interrupted the perfectness of my happiness, and constantly tormented me; in the first place, I was not yet clear of the perquisitions of the governor of Vera Cruz, and I dreaded his reproaches, if he should come to the knowledge that, in spite of his orders, I had exceeded the limits of the jurisdiction of the city he governed. I was precisely in the condition of the truant, who sneaks into his father's house after a holiday he has been making, while his parents thought him at school.

On the other hand, whatever reliance I placed on Spanish dilatoriness, I trembled lest I should not arrive before the departure of the two ships destined for the Havannah, in the forward part of June, and by which I reckoned upon returning. That I might so do, had been the motive for my hastening my departure from Guaxaca, and making such speed on my way; and on this head I had verily no occasion to reproach myself, for I had used the utmost diligence.

By four in the evening we arrived at Rio de Jamapa. Though this river was greatly swollen, we were assured it was passable. The Indian, my guide, went before; in a little time the water was up to our saddle-bows. Most luckily, I had constantly had my boxes packed very high, but for which all my treasures had been lost; for us ourselves the risk we ran was imminent. This was no longer the broad and tranquil stream but three feet deep which I had passed before in a boat, but a rapid river, whose impetuous current bore every thing before it, and which was more than six hundred yards over; besides the oblique line which its rapidity forced us to take, we were moreover obliged to make an angle, in order to ford it, and reach the proper place of landing. I found all my exertion requisite in keeping myself steady on my horse, which trembled with dread beneath me, and all my courage not to be intimidated at the sight of our danger. I found it utterly impossible to look at the current without being dizzy, so much so, indeed, as almost to lose my seat. Our horses, feeling their way at every step, were twenty minutes in relieving us from the frightful fears we endured throughout this dangerous passage. It was certainly the most perilous situation I ever was placed in in my life, and were a million offered, I would not have ventured to return to the other side. On landing, I was pale and faint, and needed a draught

draught of brandy to bring me to myself. Three hundred paces from where we landed we saw a cabin at which we should have made the shore but for the depth and extreme rapidity of the flood.

Night overtook us at two leagues from Vera Cruz. It was unfortunate for us not to be able to reach that city, but to attempt it would be running the risk of losing ourselves in a country where the tracks made in the sand one day are effaced by the winds on the next; moreover, our horses were exceedingly tired; and after all we should have found the gates of the city shut.

We were therefore forced to stop, and halted for the night by the side of a caravan, consisting of three hundred mules. I had before met with similar caravans, and at first conceived, as may be gathered from my narrative, a very high opinion of the population and commerce of the country; but I have since, on weighing these circumstances more maturely, been convinced of the contrary, and that, compared with the consumption and commerce of the whole of Mexico, the number of mules is far from great. During my stay at Vera Cruz, I saw more than ten thousand mules loaded there; but then it must be considered that the exportation and import of a country four times as large, though not a twentieth part so populous as France, is all carried on at this one port: that these animals convey the produce of the whole of the north of Mexico, Vera Cruz, Guaxaca, and Guatimala, a gorge between the mountains of more than five hundred leagues in length; and that the returns brought by them are either of great bulk, or very heavy, for example, wine, oil, iron, &c.; nor is this all, though the common load of the Mexican mules is from five to six hundred weight, it is not the less true that thirty, or even forty of them, on account of the necessity of relays for shifting the loads, scarcely carry as much as one of our broad-wheel waggons, such as are used between Nantz and Strasburg, and which carry twelve thousand weight; after this computation, six of such waggons in reality effect as much as two hundred mules, though they make a far less conspicuous appearance: to these considerations, let there be added that these numerous caravans are only seen every other year when the galeons are off the coast, and then we shall be enabled to appreciate at their just value this pompous and imposing display of mules and muleteers.

We hoped to meet with some supply of food from these muleteers, for we were utterly destitute of provision, having reckoned for certain on reaching Vera Cruz. I therefore entreated them to sell me some of their thin cakes of maize, but this they flatly refused; however, a few moments after, they brought me a dish of beans, and some maize, prepared in a manner I had never seen before: they take the finest part of the flour of this grain, after sifting it, which is formed into a puff paste, and they afterwards bake it in the same manner as biscuit. They thus make chippings of white bread, which are eaten in pieces, and are really both very good and wholesome, but require long mastication, as they are very dry and hard. The present of the muleteers I shared with my topith.

I opened all my cases, in the same manner I had done the day before, to give air to my cochineals. After this I was anxious for rest; but in vain did the cool of night combine with fatigue to close my eyelids, a cloud of gnats hovering constantly about prevented the gentle influence of the poppies of Morpheus. How vexatious, how tormentingly vexatious the struggle between exhausted nature and the continual buzz of myriads of winged adders, now alarmed with their hum, and as often with a sting: a sting, the pain of which, of long duration, and severe, ceases only to be succeeded by a terrible itching, which nothing alleviates, and which is only the more increased by scratching, till bathed in blood; scratches, indeed, are often followed by danger-

ous ulcers. Ever summoned and still ever driven away, my disturbed slumbers were to me a real torture, and at the close of night, I found myself still more weary than if I had passed a whole week in the most exhausting labour.

At length I saw on the horizon the brilliant star of the ship Argos, and concluding thence it was two o'clock, we departed.

We arrived at Vera Cruz, at the gate of Orissava, before day-break. I was in a condition so little fit to be seen, that I thought it best to go and change my dress before I entered the city. Leaving, therefore, the Indian to take care of my trunks, I scaled the walls, entered my lodgings, where I found every thing as I had left it; dressed myself in a decent manner, and repaired to the gate of Orissava, which was then opening. I was a little surprised and somewhat terrified at not finding there my horses; but I learnt that, there being no officers at that gate, they had been taken to that of Mexico. I ran through the town thither, and reached it at the instant of their making their approach. The guards wished to send me to the customs house, which did not open before eight o'clock: I instantly felt all the inconvenience consequent on traversing the city, and exposing my prize to the looks of every one, and shuddered at the thought: I therefore saw no better expedient of disembarassing myself than tickling the natural vanity of the Spaniards. What, said I to the chief clerk, do you then so soon forget the French physician? and is it possible you could wish to make him kick his heels in attendance like a footman, for the space of four hours? Besides, are you such novices? Cannot you yourselves make the requisite examination? You cannot be such geese but know your business, and how to act without advice. Do but look, what I bring is nothing but herbs, nothing but botanical collections; and as I spoke, I opened my boxes. They were not disposed to take the trouble of examining more than two, and the only things to which my good folks took exception were the sticks which supported my nopals: they fancied these must needs be some precious wood, and enquired its name of me. I found it no difficult matter to invent one, and I obtained my dismissal. *Vay usted con Dios*, Pass in God's name, was all they said. I did not require twice bidding, but soon reached my own home.

There was nobody yet up in the house, not a soul stirring in the street, and every thing was placed secure in my apartment without a single person observing me.

I had now attained my wishes, and my satisfaction was extreme; my expedition was complete, and in the short space of twenty days, the half of one of which had been uselessly spent. I had also stopped two days at Guaxaca; so that I had travelled in sixteen days I had journeyed two hundred and forty leagues, of which forty on foot, over roads so bad as often to be almost impassable, under a burning sun, in a wretched country, without resources, and among people of whose language I was ignorant; in a country, in short, where I was destitute of a protector, or any connections, and where every public officer from his station ought to be inimical to me; to have effected, under such circumstances, so long and tiresome a journey, without illness, and without accident, was a matter so extraordinary, so lucky, that I scarcely was able to persuade myself of its reality.

In order to secure my felicity, and more fully enjoy my thoughts, I resolved on shutting myself up, and not going out the whole of the day.

After breakfast I sent out for some mould, in which to plant my nopals, which I had taken out of the cases, and exposed to the air. I found they had sustained some trivial injury from rubbing, but this was inconsequential; and all considered, I had no room to complain. I put the nopals into my bed-room, the most retired of my apartments; as for the vanilla and other plants, they were ostentatiously exposed in the hall, in
order

order to attract the attention of those individuals, from whom I must necessarily receive visits.

However great my satisfaction (and when is it ever perfect ?) I could not disguise from myself the reverse of the picture. My return by sea to St. Domingo was adventurous, but my chief embarrassment was how to get my treasure on board at Vera Cruz, *in conspectu omnium*, in the face of all Israel; and then the second gauntlet I had to run at the Havannah, where I presumed I should have to touch; for to how many accidents and inconveniences must I not be subject, if in the crowd of inquisitive spectators I must encounter, there should happen to be but one of them malevolent?

I was moreover anxiously disquieted about the means of fixing my plants on board ship in such manner that they might be least liable to harm; however, after forming one general plan, I afterwards made a point to dismiss the care of particulars till time should require their adoption.

Following this rule, the first thing which claimed attention was my passage. Before my departure, I had been presented to the Marquis of Harisson, then two months at Vera Cruz, who had arrived with a cargo of wines, and who, on going to the Havannah, was anxious to have a Frenchman for his companion: he had accepted of me, and we had agreed to treat for my passage in three weeks from the time of our conversation. I arrived in good time therefore, and proposed visiting him that very evening, for the purpose of learning what day he meant to sail: at dusk therefore I went out, calling first on my friends the engineers, who I knew would not be at home, in order to gather from the servants how the land laid. These good folks were delighted to see me; and by their attentions, I reasonably judged that no change had taken place in their masters with respect to me. They informed me, that I was still conjectured to be at La Medelina, employed in botanizing and enjoying the baths. I next visited the general of the fleet, under like certainty of not meeting with him; my surprize, on this occasion, was of the most pleasing kind, when I was informed by his major-domo, that Don Antonio Uloa was at Mexico. This incident was the more favourable, owing to the constant visits I received from this inquisitive gentleman, who would have examined every thing, and infallibly have discovered what I wished to conceal. I have had confirmation of my being supposed at La Medelina. It was indeed known that I had brought back cases with me full of plants; but if nothing further was suspected, of what concern to me was this?

I returned home to supper, therefore, perfectly tranquillized. I had here my mattresses, pillow, and white sheets, which I found the more delightful from having long been ill-accustomed to a good lodging and comfortable repose. There is, in truth, nothing like privations to teach one the real value of comfort.

The next morning, after a refreshing night's rest, I rose, and was dressing myself to call on Mr. Harisson, when Mr. Fersen entered. So, so, my little libertine, said he to me, you have not been all this time at Medelina, of that I may safely wager? Confess now, said he smiling, that I am not wrong in my conjectures. I wished first to learn if the governor had mentioned me, and was informed that, in answer to interrogations twice made at his table, he had been told that I was still at Medelina: upon hearing this, I made him partially acquainted with my journey, telling him that in my excursions I had been insensibly attracted by my curiosity as far as the volcano of Orissava: he was all astonishment at my having been able to go so far in the time, and solicited a detail of my expedition. I found it no difficult matter to vamp up a story with little embellishments, and suited to the spots I had seen, but of which I placed the scene between Vera Cruz and Orissava. I afterwards shewed him, with an

air of triumph, all my plants. Why what the deuce will you do with all these? said he jeeringly. I let him enjoy his laugh; but I had my turn, for he, having entered my bed-room, saw my nopals there, and no more, for knowing nothing of the cochineal insect, he paid them no attention; I therefore laughed in my sleeve. Confess, however, added he, that you have had the sight of a most beautiful country. Yes, retorted I, and also a most wretched one. With this he agreed; and on my noticing with astonishment the scarcity of cultivation and inhabitants I had remarked, he enhanced my wonder exceedingly by informing me that from Panama, on the south-west, to California and Sonora, on the north-west, and from Carthagená to the Mississippi, embracing a surface of two millions of square leagues, the enumeration of the inhabitants does not exceed a million, including not only all the Spaniards, but likewise Indians, mixed breeds, (*metis*) and negroes.

M. de Ferfen likewise informed me, that M. de Harisson would not fail for a month to come, when he left me, inviting me to dine with him: I promised him I would; but in the interval I wished to find out a carpenter, to order different cases for my plants, and concert with him on the best mode of constructing them with security to bear the rolling of the ship. Having planned all this, I ordered sixteen boxes of twenty inches long, ten broad, and six deep, for each of which I was to give him two reals. I likewise wanted two large chests to hold them, but for these he asked me ninety-five livres of the money of our islands, for each. The grossness of the sum displeased me, and I thought no farther on the matter, till, in crossing the market, I saw in a carrier's shop, two large trunks, which served him for locking up his goods at night; these I purchased for eight dollars a-piece, and I found them larger than those I had intended, made of good ash plank, well bound with iron, and with good locks.

One essential matter thus complete, I began to think of my departure. I went to my cook's, and learnt there with inexpressible delight, that D. was about to sail that very week for Guarico: (thus the Spaniards denominate Cape Francois). All that was wanting now was to agree with the captain; but this was what gave me some uneasiness, on account of the possibility of some inveteracy he might entertain against me, upon the following occasion: at the hotel of Mexico, I had been a near neighbour of his, and he had oftentimes intruded upon me at those moments which were the only ones I could dedicate to study; but what even more than this had made me averse from him was his common practice of speaking on religion and politics, of declaiming against the fanaticism of his countrymen, and extolling to the skies Voltaire and other authors, who have the most freely written on these subjects. This at the first only made me look on him as an eccentric character; but it afterwards originated a suspicion of his being a spy, who only meant to pump my sentiments: on this I cut him quite short, by observing that it by no means suited his station to meddle with affairs which naturally pertained to the civil and ecclesiastical powers, to whose imperative decisions and superior intelligence it were better he should submit.

I was fearful lest when I needed him he might retain resentment at my hastiness. I was at the time unacquainted with the circumstance of his being on intimate terms with the lady of the late intendant, and that she had inspired him with that good-will towards me which I had so constantly experienced in herself: of the good effect of this I had soon the most ample proof.

On my very first enquiry if he would take me as a passenger on board his vessel, he answered, without the least hesitation, that he would with the greatest pleasure; and when, on my agreeing to accompany him, whatever course he might steer, I enquired

what I should pay him for my passage? Nothing, sir, was his reply. He afterwards asked me, if I was aware of his actual destination? and on my informing him of my suspicion of its being to Cape Francois, he acknowledged it was, and on this head enjoined secrecy; this I solemnly vowed, and again adverted to the price for my passage; but he would listen to nothing on this head, and leaving me, begged me to have every thing ready by the next Wednesday. His liberal demeanor affected me; yet, still not having altogether dismissed the prepossession against him which had haunted my mind, I feared lest the circumstance of his giving me a free passage might engage him to treat me, or what was more consequent with me, my plants, with less attention: in order therefore to come to a clearer understanding, and conclude our agreement, I conducted him to the ice-house, where I proposed to treat him with creams, but this he would not suffer; in short, all I could obtain from him was that I should have allowance to put on board some refreshments; in consequence, I shipped in his vessel sixty bottles of wine, fifty fowls, &c. &c.; and as early as Tuesday embarked all my effects, my nopal only excepted.

While this was passing, my small cases were in hand: when completed, I found that eight of them readily entered, but exactly filled each of my large chests. I afterwards planted in each case four large plants of the nopal, covered with living cochineal, besides twenty leaves or articulations of nopal, just taking root, which would form so many plants, without reckoning sixteen large ones, part of which had begun to root; in all nearly three hundred plants; with these I mingled a number of other plants of wild cactus, from Vera Cruz; upon which, on my return from Guaxaca, I had seen and recognized the sylvester cochineal, without suffering myself to be deceived, as I had been before by the caterpillar of the destructive moth, which Don Uloa mistook for the cochineal insect itself. As for the plants of vanilla, I placed them, divided into pieces two or three feet long, in a dozen casks and cases, but so intermingled with twenty other kinds of plants, that none but a botanist could have distinguished the valuable ones from those which were not. I watered all my plants to complete saturation, in order that they might want no water for some time to come on board, and all being ready, I waited only the instant for sailing, the moments to which period were as tedious to me, and counted with as much impatience, as the intervening time which divides an expecting lover from the mistress on whom he doats.

I spent the interval of my stay in bidding adieu to all my acquaintance, but especially Señora de Boutillos, who was returned from the country, for the celebration of the nuptials of her daughter and the general of the fleet. She, as well as her daughters, tendered their services in the most obliging manner, and even testified regret at my departure. In return, I wished them happiness, and the prosperity of their family; nor ever were wishes more sincere.

Messrs. Duparquet and M. Ferfen were not forgotten; I in like manner wished them every blessing of life. They pitied me much for having gathered so little fruit from my expedition; I thanked them for their commiseration, but was not so candid as to undeceive them.

What was most irksome to me was taking leave of the governor. I however presented myself before him, for the purpose of advising him of my departure; intelligence which occasioned him as much pleasure as I pretended regret, on announcing it to him. He at the same time enjoined me to acquaint him what hour I went on board, in order that he might be present at the entrance of the port, to take a deposition on the occasion, in company with his secretary. This I promised, but with settled

resolution to the contrary, so absurd did such forms appear to me, and so humiliating for myself! At bottom, however, it was a subject for laughter; his presence undoubtedly was for the purpose of ascertaining that I bore off nothing with me, and already were all my effects on board.

I was solicitous of bearing away with me the letter of the viceroy of Mexico*. This was a curious piece, and had I obtained it, I should have suspended it from my nopals as a trophy. The governor had indeed promised to give it me; but, leaving him time for reflection, he perhaps considered that it would not much redound to the honour of his superior, and in consequence flatly refused it; on my last audience, I insisted upon it. You are very bold, said he angrily; but did you offer me a hundred thousand crowns, you should not have it. His pretended anger had no effect on me; I told him therefore, that it was requisite for me that I should possess the means of satisfying my patron that I had not been at liberty to follow up my botanical researches in the kingdom of Mexico; still however he remained obstinate; he even went so far as to add that he would not give me the letter, though my patron were the King of France himself! The King of France, said I, in a modest manner but still with firmness, is as much the protector of his meanest subjects as the King of Spain can possibly be of his, however elevated. When a criminal is banished, he receives the minutes of his trial; and shall I, who am free from crime, be treated less favourably? My boldness pleased him; he did not indeed give up the object itself which I solicited, but he became calmer, and consented to notice in my passport the order of the viceroy.

He moreover withheld from me the passport for Vera Cruz, given me by the Marquis de la Tour, at the Havannah; and I even suspected that this was done for the purpose of making it the base of a charge against that excellent man, which occasioned me great uneasiness.

As for the letter of the viceroy, I, in good truth, cared little about it; at the same time it gave me pleasure to have the governor fancy, as well as the rest, that I left the country much vexed at not having penetrated the interior; as such an opinion tended to remove any suspicion which might be entertained of the value of what I bore away.

On my return to my lodgings, I wrote a letter to Don Antonio Uloa, at Mexico; it was in a complaining style. I observed, with respect to the refusal of the viceroy, affecting a liberality, or rather, a sort of rhodomontade, that however vexed I might feel on the occasion, I should never place this circumstance, or any exertion of mine, in the way of those Spaniards who might come to France for the study of the arts and sciences; but, on the contrary, if it rested with me, they should experience even more indulgence than they had before been wont to enjoy, were it only to shew that a Frenchman has too lofty a spirit to attend to trivial injuries.

After this I settled all my bills: in order to discharge the whole of my debts, I found myself obliged not only to dispose of every article of furniture I had bought at Vera Cruz, such as my bed, chairs, tables, &c. but also of my watch and ring, after which, and all paid, I found myself with only two gourds (dollars) remaining, a sum which I reckoned would about cover the charges for going on board. Had I sought it, there is no doubt the purse of some one or other of my friends at Vera Cruz,

* It will be recollected, our author addressed letters to the viceroy for permission to travel in that kingdom: the answer, as is stated, was unfavourable; and the substance of the letter is given in the early part of the narrative. TRANS.

would have been open to me, but I thought such a procedure beneath me, and adapted to create suspicion of my individual character, and that even of the nation itself to which I belonged; I therefore preferred depriving myself of every thing, and thus avoided a possible obloquy.

I had yet a few days to stay, which I spent in visiting and walking about: a singular procession, to which the delay of my departure enabled me to be a witness, on the octave of Corpus Christi Day, was of too curious a description to admit of my passing it over in silence.

At the head of this procession were seen six gigantic figures, in pasteboard, twenty feet high, representing a male and female Indian, a negro and negress, and a Spanish man and woman, carried by shoe-blacks, and dancing an allemande; these were succeeded by a stout fellow carrying a French figure made of straw, with a distorted haunch, and all its limbs out of joint; this figure, which is fixed at the end of a pole, as on a pivot, is made to move its limbs like the pasteboard harlequins of children, and its somersets and aukward motions are a subject of considerable merriment to the Spanish populace; follow this harlequinade ten other fellows in the guise of fish, with each a blown bladder with peas in it, fastened to the end of a stick, and with this they strike at random, right and left, whoever may be in their reach. These porpoises are precursors of a whale, framed on a large waggon, which is moved along by men beneath the exterior, representing the whale: these men likewise occasionally make the whale open and shut its mouth, as if about to devour the silly fools afraid of it; after these, the different brotherhoods and religious orders, each with the image of their founder, in silver, carried on a platform by six men, march in regular order: the residue of the procession presented nothing extraordinary.

I remarked another religious practice at Vera Cruz, which will not appear less singular: when the sacrament of the wafer is carried to the sick, it is taken in a coach, magnificently gilt, and adorned with plate glass in the same manner as the carriages of state of sovereign princes; it is drawn by mules, four a-breast, which go a foot pace; at each of the angles of the imperial is a lamp: the person who carries the wafer sits at the extremity of the coach, in a species of niche, purposely made for him; opposite is a priest, his employment to drive away the flies, that the person who carries the sacrament may not leave his hold of the pix which he carries in his two hands. The coachman wears a great coat of scarlet, with silver lace and silver buttons, like our vergers at Paris. At the doors are two grenadiers, and two miquelets, and behind, the coach is followed by double basses, bassoons, violins, guitars, and other instruments, escorted by a crowd of people: during the procession, the great bell of the church is sounded gently.

At last, Wednesday arrived, the day on which I had to embark. I was not without some dread, and, in real truth, this appeared to me the decisive day. At day-break I caused all my cases of plants, as well as all my empty boxes, *series longissima rerum*, to be carried from my lodgings, and every thing before six had reached the gate of the quay. I computed that at this hour the idle would be yet asleep, that the soldiers and officers, tired with the night-guard, would be at rest in their hammocks, and that all unoccupied and inquisitive at the market: my conjectures were well founded, for if a few sailors be excepted, three or four officers, and the guard, I met with very few in the streets. I reached the port, followed by thirty porters, hired a boat, and returning to the quay, caused my cases, filled with earth, to be placed on the ground before the searchers: thus far, all went on very well; but in a few minutes, soldiers, sailors, and trades-people all rushed forwards to see the plants which the French
botanist

botanist was bearing away. The officer of the guard complimented me on my researches and collection of herbs; the searchers admired them in stupid astonishment, but at the same time were so civil as not to sound any of the cases, though they might have done so without injuring any of my plants; and the head of the office, satisfied with my readiness to suffer examination, told me I might pass on. It is a certain matter, that I had it in my power to defraud the King of his dues, and might have carried away in gold to the amount of a million, or a dozen *talegas*; but I was so well known, that no one suspected my being capable of such baseness. I, however, made haste to get away with my things, lest some one more enlightened should play me, either unintentionally or from design, some scurvy trick or other. The whole of my goods being now in the boat, it put off, and I followed it, when I placed the cases in the chests, which I locked, and caused to be securely fastened on the deck. I recommended the sailors to be careful of them, and, as an entrance fee on coming on board, presented them with a couple of gourds, which, for the purpose, I borrowed of the captain.

I returned now on shore to announce to the governor that I should go on board at eight o'clock; I could not see him, but held my promise effected, and never set foot in his house again: we did not, however, sail till several days after, which gave me much uneasiness; my plants, shut up as they were, necessarily suffering greatly. I had, indeed, at each side of the chests caused four holes to be made of four inches square, that I might be provided against stormy weather, when I should not be able to open the chests, and I went on board twice every day in order to give them air; still, that I should be obliged to be separated from my dear plants, to sleep away from them as I did for three nights, this occasioned me indescribable torment, and never certainly could a miser feel more pain from the fear of losing his gold: the different trips on these three days cost me three piasters, which made the whole I was indebted to the captain, five; to acquit myself of this debt, I sold some very beautiful sleeve buttons, and this done, found myself poor as Bias.

At length, even Spanish dilatoriness seemed near its end; the captain swore he would weigh anchor on Saturday.

That day I went on board, according to custom, to give air to my plants at five o'clock in the morning. The captain's boat came on board, to direct the pilot to weigh anchor. Imagining now his promise would be fulfilled, I put on board the rest of my things; but after waiting for the captain in vain till three in the afternoon, I gave up hopes of sailing that day: this night, however, I slept on board.

On Sunday the necessity of attending mass again delayed us. I went on shore, and took a last farewell of Mr. Fersen. I brought back with me on board likewise five or six cases of mould, in order to give more room to my jalap and vanilla plants.

8th June 1777. At length, by eleven o'clock, we quitted the port, saluting the castle and the captain of the port with one gun, and seven times exclaiming, *viva el Ré*, to which salute the captain's ship answered by one exclamation only. The weather was fine; we had a light breeze, and the log shewed five knots. When a league from the city, we perceived a boat making after us, which was soon alongside. On first distinguishing it, I had again, as at the Havannah, the weakness to fancy that I was the object of its pursuit. I conceived, with some appearance of reason, that the governor, piqued at my having avoided the *procès verbal* which he meant to draw up on my departure, had sent an order for me to be put again on shore. I was, however, soon undeceived, and saw that it came merely to bring a man on board who had failed of being ready at the time of the last boat putting off; but this gave me an oppor-

opportunity of learning a curious circumstance, which was, that on the captain's waiting on the governor to receive his orders for Campeachy, the latter made inquiry if I was on board, and exacted a receipt from the captain for my body: he likewise enquired if I seemed very melancholy; to which question the captain answered in the affirmative. It will be readily conjectured that this little narrative amused me greatly. The whole of the bay abounds in excellent fish.

9th June. The night has been dreadful; storms of thunder and lightning and torrents of rain seemed to threaten a second deluge; still, we had little wind, and the ship rolled dreadfully.

In the morning, I had a very interesting conversation with the captain of the ship, with whom it was now plain I should have every reason to be satisfied.

As observing me giving air to my plants, I have found you out, said he to me in a low tone of voice; you most assuredly are not about to transport this cochineal to your own country, but with a view of naturalizing it there? The liberality he had shewn towards me, the frank manner of his accost, determined me on confessing to him that which it was now of no service to deny; nor had I any room to repent my confidence, but, on the contrary, by his assistance, perfectly cajoled the sailors, who, as well as the captain, stood near me, and one of whom, more cunning than the rest, had taken one of the insects, and crushed it on a white deal board, and observing the purple hue it gave, cried out to his fellows, why, this is cochineal, and cochineal is contraband. To divert them from the idea they might else entertain on this subject, the captain and myself planned a short scene, which played off seriously before them, estranged their fancies a hundred leagues from the track they were taking. One afternoon, the captain being on deck, with his officers and most of the seamen, asked me in a grave and inquisitive manner, what I meant to do with all those plants? They are, said I, in as candid and easy a manner as I was capable of assuming, they are intended for a preparation, a remedy. A remedy? for what complaint? For the gout? Indeed, and pray what is the process of making it? Why, this; the nopals, cochineal, vanilla and jalap are pounded together in a silver mortar; the mixture is afterwards boiled; the expressed juice, in proportion of an ounce at a time, is administered to the patient internally, and of the mark a cataplasm is formed which is applied to the feet. And are there no other ingredients in the prescription? At this I seemed loth to tell the whole secret; I, however, acknowledged that the balm of Mecca was a component, incense, gold dust, leaf silver, (and, in a half whisper, but loud enough to be heard without difficulty) some blessed lint which had touched the relics of *Santo Torribio*; this, with a few Latin words I intermingled in my answers, rendered my receipt exceedingly respectable in the minds of my auditors. Never indeed was nonsense listened to with more attention, and the bamboozled sailors as well were convinced of the purity of my intentions, as of the efficaciousness of the prescription. I sighed, however, as much as I laughed at this ridiculous imposition; but it was indispensable, that I might parry the denunciations which might have been made against me otherwise at Campeachy, by some one or other of the crew.

We were no more than twenty leagues from Vera Cruz. The wind at first very variable, afterwards strong, and then again a dead calm. We distinguished the Campeachy packet, which sailed a little before us, at three leagues to leeward. In the evening we saw a shark.

10th June. The whole night through it rained, and the calm lasted till half past three P. M. I planted some vanilla, jalap, and nopals which I had remaining. Three leaves of my large nopals, loaded with cochineal, rotted, (a first cause of anguish); but I

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was somewhat consoled by having succeeded in settling the new-born cochineals upon other nopal leaves in a very healthy state.

At half past three we had the wind abast, making for the E. S. E. We were accompanied throughout the whole day by a shoal of bonitos, which played about our ship, and which, though against the wind, frequently swam round the vessel: this circumstance appears to me worthy of consideration. I likewise saw a number of beautiful dorados. The sky was clouded throughout the whole day, the temperature highly pleasing.

11th June. The sun again made its appearance with increased splendour; there was no rain in the night; we made but little way, and by reckoning were only thirty-five leagues from the point of departure; from nine till three a dead calm, a clear sky and high temperature; we were followed by the same escort of bonitos, and by a number of other small fish, which had followed us from Vera Cruz; at three o'clock a wind from the north sprang up, and we ran four knots. Additional losses gave new cause for regret: I was obliged, after collecting the cochineal, to throw five other leaves of my large nopals into the sea. What a mournful prospect for the future, provided, as it is threatened, we should be two months out at sea!

12th June. The north wind continued till three in the morning, when it veered to the south-east: the night fine and without rain. At eight the wind sunk into a calm, but a very light breeze from the north sprang up at ten.

13th June. The night beautiful, and the morning lovely: at eight a calm, a breeze at ten, rain at noon, succeeded by a calm till five. Again had sight of the brigantine for Campeachy; it advanced no faster than ourselves. Rain and a storm at eight in the evening.

14th June. The night tranquil, the wind changed from the north to the south-east; though it blew hard, it yet did not prevent our progress; the whole morning, squalls with rain. By reckoning, according to the pilot, we were fifteen leagues from soundings, and forty from Campeachy. I lost the beautiful brood of Mexican parroquets which I brought with me, and three other leaves of my nopals. My cochineals exacted all my attention; it was their time of bringing forth; I had nests to make for them; nor was this all; the hurricanes that blew, threatened to fill all my cases with salt water, which is utterly destructive of these plants. I was obliged to stand centry over them on these critical occasions, and cover them with thick matting, giving them air only by means of the small side openings. Were it not for the extreme tediousness of navigation in this gulf the voyage would have been pleasant; but the winds which prevail at this season in alternation with calms, being south-south-east and north-north-east, they blow to no port whatever in a direct line.

We enjoyed the sight of an infinite number of dorados; the most beautiful fish that swims the sea; still, we had not a single man on board who had any inclination to fish.

15th June. The whole of the following night we had a terrible hurricane, the rain fell in large drops, and with a noise like balls of lead. The wind blew furiously from the north-east, till three in the morning, at five it got round to the south-east; neither on this nor on the preceding day was there intervention of calm. We had been upon soundings from ten in the morning, and might expect to arrive in five or six days at Campeachy. We saw a great number of birds. The colour of the sea underwent a change, and was of a greenish blue.

16th June. It blew hard all night long, with squalls of rain, the morning grey, the remainder of the day remarkably fine. In spite of all my care, my cases were washed

by a wave. The young cochineals did not succeed in fastening on the cactus sylvestris of Vera Cruz, called tunas. Ten other of my opuntiae had become rotten. Irremediable loss!

The whole night through adverse wind. Abundance of porpoises of enormous bulk.

17th June. Saw land on the south, and hoped to arrive the next day at Campeachy; but the wind, which blew from shore, kept us at distance the whole day: the lands low, and nearly level with the sea. A flock of boobies and frigate-birds. The colour of the sea changed by stripes, according to the greater or less depth of water: at noon we had but nine fathoms: the sky clouded.

The captain added this day to the fund of continually regenerating inquietude with which I was assailed: he apprized me that at Campeachy we should have guards and soldiers put on board; and who knows how long we might lie off this place?

A hurricane still more violent than that of the 15th, was experienced this night. The thunder roared in loudest peals. Incessant flashes of lightning furrowed the atmosphere in every direction. Rain fell in torrents; and the whistling of the blast was even louder than the noise of the thunder and the waters. Dread and consternation seized upon every one. We were obliged to take in every inch of canvass. Fortunately, my chests were well fastened and covered, but for which precaution adieu to my nopals: they would have perished with my plans, and probably myself with them.

18th June. After the storm the wind blew strong from the south. We must have been driven far indeed during the tempest, for we had from sixteen to twenty-six fathoms water; whereas the day before, when we made land, we had but six fathoms water, and were only eight leagues from shore; for in this part the number of fathoms denote pretty nearly the number of leagues from land, the soundings lessening in gradual proportion as the distance becomes less. We saw a shark and a number of birds.

19th June. The soundings various in proportion as the north carried us forward or the south drove us from shore. It seemed as though we were under some enchantment, and as if this wretched country fled from our approach. In thirteen days we had not been able to go more than ninety leagues. This day we could not distinguish land, though the line gave but six fathoms in the evening, and though all night long we smelt the land and its flowers; but we had a dead calm. After the calm, a gust of wind succeeding, we got into three fathoms water, and cast one of our anchors. We had had no rain for four-and-twenty hours.

20th June. This day we saw land by five in the morning: it is more lofty eastward than towards the south. At sun-rise we raised anchor in order to get nearer in to land, and at seven we distinguished the town of Campeachy on the south-south-east. It has no port, but merely a bad open road liable to every wind, and lying three leagues from the town, which cannot be approached nearer by any vessel carrying more than ninety tons: at nine we anchored.

The Bylander of ninety tons, which brought us from Vera Cruz, was laden with maize, for which the captain expected to find a market, intending to replace it by a loading of dyeing-wood, which at Cape Francois would have paid him a considerable profit; but in order to succeed great skill and circumspection were requisite, as this was an act of smuggling, and as smuggling is punishable with slavery and confiscation of property. The captain sold his maize to great advantage, as it was scarce; but, no doubt intoxicated with success, he idled away his time, and missed the opportunity of profiting to the full extent of his means.

For my part, the delay to which he subjected us, and the additional losses I every day sustained among my nopals, not less than forty of which I was obliged to throw into the sea, were sources to me of extreme vexation.

I had moreover much room for complaint against the crew; and for the purpose of acquainting the captain with their conduct, I went on shore; and thus had an opportunity of visiting the town.

San Francisco de Campéché is a town of a square form, each side measuring upwards of twelve hundred yards: it is perfectly well built of hewn stone, in the Spanish style, with rectilinear streets, kept very clean, and of tolerable breadth. It is surrounded with curtains and bastions, but is without ramparts or terraces. The walls are thirty feet high by from five to six in thickness, but have no fosse. On the side towards the land an immense pueblo or suburb of Indians encloses it, which much delighted me on account of the trees and thicket by which each house is surrounded. The suburbs may contain about a thousand Indians: the population of the town, including the garrison with the citizens, may be about three thousand. Money at this place is so rare that nuts of cacao form the currency: for eight of these nuts you purchase an egg at the market, and you are boarded at the inn for two reals the day. Debauchery is here prevalent to the same extent as wretchedness, but its ministers are such as could please but sailors alone, yet these so well that they reckon this a paradise. Such was the extremity of misery throughout all Yucutan about six years back, that, according to the account, even of the Spaniards themselves, there died from want no less than forty thousand persons. It is however doubtful, notwithstanding the immense extent of this province, whether it ever contained so many inhabitants; but, on the contrary, should it be true, should any credit be due to the Spaniards when they give such a shocking list of deaths, have we not to charge government with the most reprehensible neglect? How can it have been careless to such degree as to suffer this province to remain so destitute of provision, while with so much facility grain might have been supplied either from the Havannah, where all kinds of European corn abounds, and which is but two hundred leagues distant, or from Vera Cruz, but eighty leagues away, and where a similar plenty reigns! This extensive region has the more need of assistance from the frequency of dearth. The cause is to be attributed to the droughts so fatal to this country, the soil of which consists merely of a slight quantity of vegetable earth on a rocky base; and so frequent, owing to the land lying low, and the want of mountains to break the clouds, which, in consequence, except where the north winds encounter others from the south, and occasion them to break over the land, are constantly borne out to sea. Should the months of May, June, and July, those in which maize is sown, unfortunately pass without rain, all the hopes of the colonists are lost, and they are left wholly destitute of resource.

The only trade carried on at Campeachy is in stone sent to Vera Cruz, and dye-woods, immense piles of which, cut for upwards of thirty years, are seen in different parts, which the Spaniards prefer seeing rot before their faces to selling to any interloper, though they cannot possibly export them themselves. The whole time I was there, I saw but three brigantines loaded, and at no time perhaps is there a greater number here. The culture of cacao is not allowed in this country: I know not from what lamentable policy, for it would succeed admirably. Cacao, in consequence, is so dear that the nuts or beans are used as money. The poor, who in consequence of the dearth of chocolate are deprived of the enjoyment of that beverage, substitute for it the pips of the zapota marmue, whose fruit is large as an egg and bitter as coloquintida.

I traversed the whole of the gardens in Campeachy, and found not one that was curious. I culled here at hazard sixteen plants of two species of cactus without thorns, which afterwards were of great use to me.

However, on the 6th July, the captain repaired on board with intention to put off to sea, and within three days at farthest three barks were to bring us out to sea the Campeachy wood we were to take on board.

Notwithstanding all my pains I never was able to procure either branches, leaves, or seeds of this tree to satisfy myself whether or no it is different from that we possess in our own colonies. I paid a sailor beforehand to procure me some, but they never came.

We were just on the point of weighing anchor, when the master of a boat which had brought us in a stock of wood for cooking, saw my nopals and cochineal, and told me that they were cultivated within six leagues of Campeachy. Though I have strong doubt of the truth of this statement, I nevertheless felt much vexed at not having had an opportunity of ascertaining whether it was true or not, and in the former case of renewing my plants, and recruiting my insects.

Whether in hopes of other little presents in return, whether as a compensation for the vexation I endured from his having made so long a stay, the captain gave me the handsomest parrot, not larger than a dove, that ever perhaps was seen: its beak yellow at the base, and black at the extremity, the whole of the body a bright green, the cheeks and the circle round the eyes of a blood red, the forehead, shoulders and thighs of the same colour, the upper part of the head crowned with yellow, the centre white, and the hinder part azure blue, the wings green, blue, flame-coloured, and purple, finally, the legs yellow, the eyes blue, but the iris yellow. The captain moreover presented me with a cardinal, and three tigers' skins.

11th July. At length, after a useless stay of five days, we found we must give up all hopes of the dye-wood coming on board. The poor captain thus saw all his dreams of fortune vanish, and in addition lost the twenty piastres he had paid down as earnest of the bargain to the person who was to have procured him the wood: thus, either owing to negligence, or to want of management, the unlucky man lost a profit of at least three thousand dollars, for the wood which at Campeachy fetches but three reals, at the Cape is worth three piastres. I was exceedingly hurt that he had not made a confident of me at an earlier period, as it struck me I might not only have given him good advice but have obtained for him a hundred ton of wood.

We weighed anchor at ten in the morning, and with a wind from the south-west advanced in a direction E.N.E. at about half a league an hour. At two o'clock the wind changed, and we steered W.S.W. We were fain to anchor at four in four and a half fathoms. The whole night through it blew hard with much thunder, but no rain.

12th July. After looking out for a wind, but in vain, throughout the whole of the night, it blew from the south at three in the morning; we, in consequence, quickly raised anchor, and made north-east with a fine sea and beautiful weather, which continued till half-past ten, when we were becalmed. After advancing, notwithstanding, about half a league, by half-past one we had a breeze from the north-west, which was of much service to us. The water now again changed colour, and from a blueish green became of an azure hue; but at four o'clock the wind rounding to the north-east stopped our further advance, and we cast anchor to avoid being thrown nearer the shore, but not till, as the day before, we were within sight of land. At nine o'clock,

o'clock, after many threats of rain, which however were followed by no effect, the wind veering again to the south-west, we weighed anchor.

13th July. This day the wind sunk into a calm at ten o'clock in the morning: during the time it lasted, which was two hours and a half, the Spaniards took it into their heads to fish. They caught in the time eighteen perch of a monstrous size, the smallest of them weighing upwards of nine pounds, it is the *perca philadelphica* described by Linné. This fish is of exquisite flavor, and is caught in depths of about five fathoms, with a hook two inches long, and as thick as a crow's quill. The bait is a piece of bacon, meat, or entrails of fowls: about a foot above the hook a ball of about a pound weight is suspended to make the line sink: the fisherman has rarely time to throw out lures on the top of the water. About noon we had a breeze from the north-west, when we set sail anew, and at three again came to an anchor. Such is the navigation common along this coast, which runs north and south: the south-east drove us out to sea in the night, and in the afternoon the north-east again sent us in shore. These are the winds predominant in these latitudes; but the winds blow sometimes south or south-west, and north or north-west, when a vessel may make some way under favour of them. It is requisite for two reasons to keep at not more than from four to eight leagues from the coast; in the first place, because, at a greater distance from shore, cayos (rocky shoals) and other sand-banks occur, on which a vessel might be driven by the north-east wind; and secondly, because in the open sea winds being more uncommon, and always, as well as the currents, adverse, a voyage would be of eternal duration: indeed no navigation in any part of the world is more difficult than that of the Gulf of Mexico. Should you leave soundings for the open sea you are engaged in perpetual currents; should you keep in soundings you have only light winds, and can make but four or five leagues in four-and-twenty hours. On proceeding, whether from the North or South Seas, towards Vera Cruz, or any other part of the Gulf of Mexico, it is not only necessary to reconnoitre the bank or soundings of Yucutan but also that of Florida. The terms *sondas*, or soundings, is applicable to the whole of the sea, of little depth, which borders the Gulf of Mexico, from Cape Catoche as far as and even beyond Cape St. Augustin, to a distance from shore of from six to sixty leagues, and in such gradation with respect to depth, that from the deepest soundings, that is to say, in sixty-eight fathoms, you may judge, proceeding in shore, how far you are from land, the depth diminishing a fathom at each league, so that at one league from shore there is seldom more than three, and sometimes but one fathom water. To this notice respecting the Gulf of Mexico is to be added that the north is the predominant wind, and is felt here with more violence than in any part of America, and with such in the months of October and November as to render these seas almost impassable.

13th July. The north wind very strong. We were obliged to anchor till midnight.

14th July. At ten in the morning the land-breeze fell, the wind again blew from the north, and in the afternoon we steered E.S.E. at the rate of four knots an hour. The temperature of the atmosphere on this sea is moderate, for, notwithstanding the sky was clear and the sun exhibited itself in all its splendour, my thermometer at noon did not rise higher than 20° (77° of Fahrenheit). We were now about fifty leagues from Campeachy.

At five in the evening we came to our inn for the night, for somewhat similar must our constant practice of casting anchor every evening at the same hour be esteemed.

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We had, an hour before, seen a ship which was nearer in shore than ourselves: we likewise saw another brigantine, which we imagined to be the Havannah packet: it sailed with the wind abaft, and all its canvas out, but still made less way than as though we had an adverse wind. The whole day and night passed without rain, but the quantity of dew that fell was considerable.

At eleven at night the wind changing we weighed anchor, but made very little way, the breeze from the south-east being very light, and sinking to a dead calm by seven in the morning, a calm which continued till the next day at ten, when the north again sprang up.

15th July. This day the north-east, at first feeble, encreased in strength so as to advance us a league.

A new anchorage at five o'clock. We had no rain at sea, though we distinguished it falling on shore. We avoided a projecting bank, which makes the water appear of a yellowish green colour, three leagues from the shore; we likewise discerned the Havannah packet: it was the same which had sailed five days before us from Vera Cruz, and was now on its return to the Havannah. The captain informed us, that the governor, the Marquis de la Tour, had been recalled: a new motive for self-gratulation at having effected my object without delay; for could I flatter myself with ever meeting with in any other governor who might succeed him, so much kindness as I had met with from him? As this packet was destined to Campeachy our captain forwarded letters by it. At midnight we weighed anchor, the wind south-west blew very feebly, and by eight o'clock sunk into a calm.

16th July. At noon the north-east admitted of our tacking and making a little way, but by three the wind encreasing, we were threatened with a storm. After a violent fall of rain we cast anchor, and sent a boat on shore opposite to a garitu, or centry-box, to take in twelve barrels of water and twenty-four fanegas of salt. I was solicitous of visiting the salt-pans here, and of making a slight harvest of the plants of the country, and of sea shells, but the dread I had lest any injury should befall my insects and plants during my absence, prevented my indulging myself with this gratification; this was another sacrifice I had to add to the number I had already made on their account. I had, however, on the other hand, the satisfaction of already being in some degree compensated: my vanilla threw out some branches, my jalap and my nopals were budding: I had indeed lost a great many, but the residue were in good condition, and I had well-founded hopes of the most complete success.

17th July. We were detained all day by our pilot, who with four sailors had gone on shore, and never returned. As he was an habitual drunkard, we conjectured that intoxication had been the cause of his delay. The breeze of morning had been feeble, calm succeeded as usual, and at three o'clock rain, with but little wind. The brigantine, which kept us company, advanced only a league the whole day long.

After passing the day in greatest anxiety of mind, I advised the captain in the evening to fire a gun. I was mad with vexation. A charming breeze blew from shore, and this night we might have advanced at least ten leagues; unfortunately, the captain was by no means a good sailor, and we had not sufficient hands remaining on board to work the ship.

18th July. At length, in the morning, the boat returned with the sailors. They had heard the report of the patereros, though a league and a half distant to windward of us. The pilot dispatched them with the salt, but himself did not reckon upon getting on board before noon, as he was waiting for fowls, eggs, and swine, which the Indians were to bring him. The captain in a rage sent the boat again on shore, with orders

orders for his coming instantly on board. He came by four o'clock, and we weighed anchor; but we had constant calms the whole day.

My pretty cardinal having got out of its cage, and fallen into the sea, the captain, without my knowledge, promised a good swimmer on board a bottle of brandy if he recovered my bird. The sailor jumped at the proposal, and the prospect of gain blinding him to the danger, he precipitated himself into the sea from the cabin window, and after swimming about ten or twelve fathoms, recovered the little bird, held it in his mouth, and making for the rudder of the boat, seized on the ring of it, by which he held till a rope was thrown out to him, by means of which he got on board. I was uneasy in extreme the whole time he was in the water, lest some of the sharks, which are so common in this sea, alarmed by the noise he made on plunging in, should make for the spot, and devour my bold adventurer; and I felt mortified that the captain, for a matter of such little value, should thus have exposed the life of one of his crew: fortunately, he escaped, and besides the bottle of brandy, he earned a handsome pulicat handkerchief, of which I made him a present.

We were at anchor, opposite to a garita, or watch-house, in three fathoms water.

These watch-houses are huts of wood, in form of square towers, forty feet high, and raised at the distance of every four leagues along the coasts of New Spain. In these centinels are stationed, whose duty it is to give advice of all vessels they perceive; and these centinels, who are Indians, are relieved every four days.

It so fell out, that one of those appointed on guard at one of these watch-houses, being tired of his occupation, asked our people to take him and his luggage on board with them, and they very imprudently consented. I say imprudently, for it is expressly forbidden, under the most severe penalties, that any captain should receive an Indian on board. I had the curiosity to examine the packet of this poor fellow: it contained provision for four days, and consisted of a dozen tordillas of eight ounces each, and about two pounds of the paste of maize, coarsely ground, which, steeped in water, forms a beverage singularly pleasing to the Indians. The man who came on board was stout and well made, twenty-one years of age, but had not a single hair on his chin. He had been married two years, but expressed not the least regret at leaving his wife. On my enquiring whether he had any children, he at first answered, no; but correcting himself, as if he just recollected the matter, he said he had one pequenito, or very little baby; and as he said this he knitted his brows, as if he wished to express that it was too small to be worth mentioning. The fancy diverted us much.

19th July. We weighed anchor in the morning, and steered the whole day before the wind: a very light breeze from the south-west. At seven we anchored, and raised anchor again at eight, the wind changing to the south-east: it was but a puff, which soon abated into a calm, and we anchored; but a breeze springing up, we again heaved anchor, and kept under sail the whole night through.

20th July. This day the north and south winds enabled us to proceed at the rate of a league an hour. The sky all the morning was overcast: at three the wind fell, and changed four times in less than half an hour: at length came on a dreadful storm of rain. After much entreaty, I succeeded in inducing the collection of half-a-dozen barrels of rain water: thirty at least, if care had been taken, might in the time have been filled. After the rain we steered east-south-east, for our pilot pretending his object was to avoid the currents, would not keep off from shore: we therefore made frequent tacks, and remained a long time at anchor. In the evening we found ourselves opposite to the Prio de Lagartos, or the River of Crocodiles, which announced

to us our having made eighteen leagues since the day before. This was indeed a good day's work, but we had yet forty leagues of shore to coast along.

At length we quitted these melancholy and tiresome shores for the open sea, and deposited all our anchors in the hold; but being immediately after overtaken by a calm, we let down a small anchor. At eleven at night, the wind blowing again from the south-east, we made sail anew: it freshened soon to such a degree, that from midnight to two o'clock we had advanced nearly twenty leagues, and the sea had again resumed an indigo blue colour: had the weather thus continued, we should have required but four days to reach the Havannah. This was the first instance of fair weather we had had since our departure from Vera Cruz. The circumstance delighted me so much as to serve as a counterbalance to the grief I experienced at the loss of fifteen or sixteen leaves of nopals, in the space of three days. To leeward we descried a wretched little boat: soon we should have to see a number of considerable ships. Seas of our fortunate colonies, how different your appearance from that of this melancholy gulph! Numerous and rich vessels furrow your bosom in every direction, like our gay carriages on the magnificent roads of Paris, while the Gulph of Mexico is as bare of vessels as the cross-roads which lead to its insulate and wretchedly poor habitations!

22d July. At three in the morning the wind had much slackened, though from the 20th we notwithstanding reckoned our progress to be fifty leagues, and consequently that we were beyond a shallow which extends the space of two leagues, at the extremity of soundings, in the direction north and south, and in latitude 23° north, longitude $286^{\circ} 10'$ from the meridian of Teneriffe. In our reckoning we had erred, for by two in the afternoon, a scream of horror from the deck called us to the fearful sight of this bank, which, concealed under water, extends itself right and left, in branches, through a space of a league in breadth, by three in length: instantly we changed our tack, and on sounding had a bottom of reddish rock, in forty-five fathoms: the rock apparently fragments of coral, was blended with herbs. The shelf seemed of a reddish colour in every part, and gave a ruddy appearance to the water. Fortunate was it for us that we encountered this shelf in the day-time: had it been night, we should have passed over it, and probably have perished; for though the sea does not break on this bank, and though it appears to be covered by a depth of water, the actual soundings upon it, as well as the nature of the shelf, are altogether unknown. In remembrance of our having escaped this danger, we drank two bottles of excellent cyder, of which the captain made me a present, and which was equal to Champagne, and found our spirits heightened by the libation.

23d July. We passed the night without any danger: the south wind had blown, but the ship made no way. We caught a prodigious porpoise, eight feet long, by five and a half in diameter. Its tail was two feet broad. The fish caught was a female: in cutting up, no doubt, some of the lacteal ducts were separated, as the animal yielded more than a quart of a very pure and remarkably white milk. One of the vessels from which this milk flowed was in diameter of equal breadth with my little finger. The womb, in which I very distinctly saw the fallopian tubes, measured at the entrance of the vagina four inches and a half. The exterior orifice was very strait, callous, wrinkled in folds, and of a substance and tissue so close, that with difficulty could one introduce the little finger: nor did it appear susceptible of farther expansion. The diameter of the vagina, easy of dilation, was an inch and a half: at the extremity of the vagina from the interior was a species of valve, resembling that of the sucker of a pump, very much wrinkled, and highly capable of expansion; and the internal capacity

capacity of the canal it formed, of inferior length to the vagina, appeared to be of similar diameter, and equally fit for distension: at the end was another sucker-like valve, which served as a door to a second similar receptacle, of rather greater capacity than the former: finally, there was a third receptacle, closed by a similar valve, with the extremity of which the two fallopian tubes communicated: these were of a spongy substance, and, internally, displayed an infinite multitude of vessels, part of which seemed lacteal or lymphatic, others, conductors of blood, but folded one within the other, and crossing each other, so that at the first glance they might be mistaken for a mass of little worms rolled up together. In the stomach of the animal were several small fish, which had already attained that state of digestion which made them look as if somewhat too much boiled. The ship was surrounded by a numerous troop of these animals, which, notwithstanding their enormous size, seemed in the water no larger than carp of eight or ten pounds weight.

24th July. In the night we had a light wind, but the day a dead calm. At the rising of the moon in the evening the wind again arose.

25th. At ten this morning we caught a shark: it happened to be the *squalus tiburo* of Linné: it was five feet long, had a fin at the anus; five lineary ports in the neck, for the bronchiæ of the pulse; a large head, and a broad neck: its teeth in the lower jaw triangular, of similar breadth, but even sharper than lancets, and about an inch in height, of these teeth the animal has three rows: the inmost row turns back on the gums: those of the jaw are subulated like the teeth of pike, and, as the others, are an inch long. This animal is of hideous appearance in the water, and shines by day as well as by night: it was harpooned with a javelin a foot long, attached to a pole of six feet; however hard its skin, which resists the point of a knife, it was not proof against this weapon; and the monster made less resistance in the water, and fought less on deck than did the porpoise we had before caught: it was surrounded as usual by the pilot-fish, so called on account of its constantly advancing in front of the shark: this fish is a kind of perch, transversely striped with alternations of black and yellow. Part of the shark was cooked and placed on table, but I could not prevail on myself to touch it, notwithstanding it is a favourite dish with the people of Campeachy, a predilection which speaks little for the delicacy of their taste, as there is abundance of fish in their roadsted of exquisite flavour. We afterwards caught another of such monstrous size that we needed tackle for lifting it on board: it was a female, but of a different species. This animal was ten feet four inches (French) in length, and from the back to the belly measured two feet and a half: the skin of the back was perfectly blue, of the belly white: it had the same proportions as, and resembled the one before described, with the following exceptions: the teeth of the upper jaw were curved towards the throat, from the base: they were moreover sharp, pointed, but rounded like barley, and jagged like the teeth of a saw. In the upper jaw it had but one row of teeth, but in the lower three: the head was not proportionately large, though somewhat of the same shape, being only more oblong, and somewhat less flattened than that of the male. The vagina was six inches in diameter, and was not callous and in folds, as I had observed in the dolphin. The rectum terminated with the vagina in one common orifice, which may be regarded as the anus. By the side of the matrix were two prominences which might be taken for teats, and of which the interior orifices terminated in the womb, but had no communicant ducts, whether glandular or lacteal: the vagina was six inches long: at the extremity it divided into two cavities, two feet and a half in length, by a breadth of a foot, but susceptible of considerable distension: the orifice of either of these trunks was filled with a spermatic matter: the interior occupied by an extremely
fine

fine and spongy membrane, attached throughout its whole length to the inward and upper part of the cavity, and full of an infinite number of cells, each containing an egg with its yolk, and an embryo, or foetus, an inch and a half long: the yolk of the egg was like, but somewhat paler than that of a hen, but the mucilaginous part, instead of being white, was of a greenish yellow, resembling bile. In order to extract an egg from one of the cells, it was necessary to break the cell: this cavity was assuredly an ovary; the substance of it was of a whitish colour, transparent, lymphatic, greasy, and the membrane easy to break. Disgust prevented my counting the number of eggs, but in every ovary I certainly saw at least a hundred. I took some of the foeti and preserved them in rum. I am not certain whether or no amphibious animals have two vaginæ, but it appears very evident from dissections that they have two ovaries. This shark was viviparous, as I believe are all. Some of the foeti, which I notice my having preserved, I sent to Mr. Daubenton.

At noon we had a heavy fall of rain, and for two hours successive showers: this, by occasioning wind, enabled us to make a slight progress; but at five we were becalmed, and continued so until the moon rose, when it began to blow pretty fresh.

26th July. The wind of the night was succeeded by slight squalls, by which we advanced about half a league an hour. Some showers fell, but unattended by wind. The crew were uninterruptedly employed in manœuvring so as to catch the least puff, but without success. Did we stand on either tack, the sails scarcely filled, and the ship barely obeyed the rudder. We fell in with two amazingly large pieces of floating timber, loaded with birds. The pilot stated us by reckoning to be five-and-twenty leagues from the Florida soundings. Our latitude was twenty-five degrees.

27th July. The morning a dead calm, provoking quietude, discouraging inertia! Why must I thus be stayed, exclaimed I repeatedly, when it would be so grateful to my heart to reach our destination? My cochineals brought forth now a second time, and I had no more plants on which I could multiply them. One young leaf of a nopal, and one old one had just died; one half of another had been consumed by a *blatta lucifera*, and I saw that I ran great hazard of losing the new generation; however, I had the consolation to see two plants of vanilla throw out other branches. A number of bonitos swam about our ship. The name applied to this species of coryphæna is derived from the Spanish buenito, the augmentative of *bueno* good, and signifies very good, or excellent. We likewise saw some dorados, another species of coryphæna, the *equifolis* of Linné. One of these was caught by our men: from head to tail it measured four feet three inches, and at the stomach was a foot and a half in diameter. The sea contains no fish more beautiful, nor indeed another that equals this in beauty. The body is of a golden yellow, resplendent above a changeable green, marked with round spots, an inch in diameter, of an ultra-marine blue; the fins and tail are a brilliant green. In calm weather its shining colours render it distinguishable at the depth even of fifty feet.

28th July. We had some wind again at night, and the horizon was so much overclouded that we apprehended a terrible storm. The wind we had, however, was adverse, and all night long we had our head to the south. In the morning we made a tack N.N.E., but were stopped by a calm. Ever since eight o'clock, I had observed in the north-north-east division of the sky, a cloud shaped like a horse's tail, spreading in the direction from N.N.E. to S.S.W., and which appeared to be the precursor of calms, in the same manner as the procellaria, in my opinion, truly indicates wind.

29th July. By midnight the calm ceased, and we made about five leagues in nine hours; from nine to eleven again calm, then wind till one, when my horse-tail cloud

appeared anew. We sounded but found no bottom. The pilot, who fancied himself upon the Florida Soundings, was thus in error, and I the more vexed on reflecting that, although but sixty leagues from the Havannah, we had scarcely effected half our voyage: what tiresome navigation!

30th July. At four in the evening of the 29th, a wind sprang up, which, from its direction, we recognized for a brisk and regular gale: this continued till the morning of the 30th, when the wind from land succeeded. By observation we had now passed the Florida Soundings, and all night long were on the look out to avoid Las Tortugas, an assemblage of four or five small islands on the border of the soundings of the peninsula of Florida. All this day the sky was over-cast, and we had several showers of rain.

On visiting my nopals I found three leaves dead: I cleaned all the others, and dusted them to remove the white powder with which they had become covered. I likewise exterminated all the sylvester cochineals, which had intermingled with the fine, and which had smothered a considerable number. Finding myself overstocked with those cacti of Vera Cruz, frightfully armed with thorns, I threw thirteen of them into the sea; after which I dried the sylvester cochineals I had collected, in order to send them to my father, and to Messrs. Rostagin and Jussieu. While thus cleansing my chests, or rather my gardens, I discovered three *chacherlas* and a *scolopendra morsitans*; fortunately these insects are no devourers of cochineal, or otherwise adieu to my treasures. The employ I undertook was for some time an amusement to me, though fatiguing.

31st July. After luffing up the whole night long to avoid the shore, at day-break we discovered the coast of Cuba, and had advanced twenty leagues into the channel: the next day we should distinguish the Havannah, and two days after be out of the Bahama channel; a prospect which assured us a prompt return.

In the meantime our crew insisted on entering the Havannah, but the captain and myself could not consent to this, without running the greatest risk, not only of our liberty, but even of our lives; we therefore determined on forcing obedience, and, in case of any obstinate persistence on the part of the ship's company, to put the most mutinous to death, at a preconcerted signal. However violent such measures may appear, it must be considered that it could be of no consequence to our crew what port they made, whereas it was important for us to avoid the Havannah.

Carried forward by the wind and current, by noon we were opposite to Bahia Konda, (Deep Bay); for two days we had had the most charming weather possible for our voyage, but we had still four hundred leagues to sail, and had not yet attained the end of our toils.

In fact the wind increased, and we had a terrible night. From the heavy shocks our small vessel received, I was fearful she would founder. We lowered the sweeps of the foresail, and reefed the mainail, spite of which the vessel rolled so dreadfully that we were constrained to sleep on the floor, an inconvenience, thanks to my apprenticeship to travels, which was to me no great hardship.

1st August. This morning, spite of contrary winds, the currents having impelled us all night long, we distinguished the table-land of Mariana; and at four in the evening a fresh tack had carried us under the guns of the Moro castle. From a distance I distinguished the country-house of Senor Huet, the neighbourhood, and the Fort del Principe, the works of which he had shewn me. The day was fine; but a violent wind from the north-north-east, occasioned us at six in the evening to reef again our sails, which we had spread to the gale. An unlucky manœuvre was near being fatal to us. All was noise; and the men running about with precipitancy increased the evident alarm;

and for myself I experienced the greater dread from the consideration of my being so rich, so truly rich; possessing what I had so much coveted: I had no such fears on my voyage to Mexico.

2d August. The wind keeping at north-east all the night through, we had made but little way by nine in the morning. This morning, the first time I had ever seen a storm in the morning in America, I was witness to one most violent. The whole of the day, and all the succeeding night, was a period of toil and fatigue, owing to our perpetual tacks. At three o'clock we distinguished the pine-tree of Matanza. The sea ran dreadfully high; and we were the more loth to enter the mouth of the Bahama channel from our sails and rigging being in the worst possible condition: here was a fresh evidence of Spanish idleness. During the frequent calms we had experienced, nothing would have been more easy than to have taughtened the shrouds; and for want of this precaution, which I so strongly but ineffectually recommended, we were obliged to lay to, and lose much time.

3d August. After numerous tacks this day, the sea constantly rough, we were fain at night to take shelter in the Bay of Matanza.

This bay is nearly a league over at its mouth, by a depth of two. Three rivers, or rather rivulets, empty themselves into it. Towards evening we anchored about half-cable length from the shore. The fort a square building, flanked by four bastions, is about sixty yards long. The curtain, which fronts the sea, is defended by a crown work, which seemed in excellent condition: I entered it as a conqueror, and found no centinels either at the barrier of the covered way, or at the gates, so that without interruption I marched to the parade, where I found six soldiers playing at cards: these without leaving their game, or asking me any questions, suffered me as quietly to depart as I had entered.

However well fortified this castle, it seems to me of no other utility than to prevent a landing, and hinder merchant ships or privateers from taking in water; for it could not certainly withstand the fire of a sixty-four gun ship.

Matanza, (the Place of Slaughter) which lies at the bottom of the bay, is an ill-built spot, in a low, marshy, moist, and unhealthy position: it has no trade, nor any cultivation about it. The people who inhabit it present the most disgusting spectacle, and render it the scene of the most abominable filth and frightful misery: they are covered with crabs of a monstrous size, which prey on them, and which, in turn, serve them for food. The village stands at the union of two small streams, which serve to float down timber, for the Havannah, from the interior of the country. A wretched redoubt of stone, denominated a castle, stands in front of the village, and defends the bottom of the bay.

We put into this miserable place merely for the purpose of taughtening our shrouds, and taking in water; but the desertion of a sailor, and the drunkenness of the pilot, delayed us two days.

5th August. This day I bought, at Matanza, six cardinals, two ciris, two larks, and eight other very pretty birds, of the names of which I am ignorant: I brought thence, likewise, a number of leaves of a cactus, called in our colonies, *la raquette Espagno'e*, and the value of which I intended to prove by my cochineals. Again had I the misfortune to see three leaves of my nopals rot: what losses! what regret at not having reached Santo Domingo!

6th and 7th August. At length we weighed anchor, and left the bay. On the 7th we were twenty leagues from Matanza. Our wretch of a pilot again steered a wrong course, owing to which we did not reach Los Martires before night, which we

ought to have made in the morning, in order to enter the mouth of the Bahama channel.

8th August. In consequence of the error of the pilot we were obliged to luff up all night in a dreadful sea; and it was not till the morning of the 8th, at five o'clock, we took a direct course N. E. with a wind from the S. E.

The currents had carried us on so far that by noon we were in latitude $26^{\circ} 6'$; thus, notwithstanding the wind in course of the night, we had advanced forty-two leagues. The sea ran high the whole day, but it became calmer in the evening. We had three separate showers.

This day we caught a booby, the plumage of which was brown without any spots, its beak blue, its eyes fiery, and capable of direction with ease towards the beak, which renders it of frightful aspect: its legs and feet of a chamois colour. After examination I gave it liberty.

9th August. Had the wind been favourable we might this day have got out of the channel, but blowing from the north-east we were obliged to luff up through the night, steering on a north-west and south-east course, for fear of running on the shoals, right and left. The sun rose with a horizon covered with clouds, a prognostic, in these seas, of bad weather, which failed not in this instance: we had a dreadful sea, the wind suffocating, the waves of monstrous size dashing against the ship; and the natural clash occasioned by the opposition of the wind and current, made a terrible noise. We constantly luffed up in the same direction, but still advanced thirty-five leagues. Such indeed is the force of the current, that however high the sea may run, it never breaks with that surge noticed in other seas, but each wave, impelled variously and in adverse direction by the wind and current, and with equal power by each, rises in a pyramidal form, and sinks with a crash on its base: it may hence readily be conjectured how great the labour and fatigue to which the ship and its crew in these parts are exposed.

In order to form an opinion of the origin and effect of the famous current which carried us along, we must reflect that this channel is the vast outlet of the waters of the Gulphs of Honduras and Mexico, and the more southern seas, as well as of the accumulations these gulfs receive from the rivers Amazon, Orinoco, Madelena, Mississippi, and an infinity of others of inferior volume. The waters of these seas and rivers, confined by the barrier formed by the archipelago of the Caribbee Islands east and west, rush forward to the channel of Bahama, the deepest of all, no doubt, formed by the different islands, and thus find an exit into the north sea. In a dead calm this current runs four knots an hour, with a contrary wind four and a half. The Trident, a Spanish ship of war, of sixty guns, was on one occasion adversely carried from before the Havannah, notwithstanding she had the wind abaft, and all sails set as far as off the coast of Carolina, without being able to stem the flood.

The sea was so frightful during the night that we merely hoisted the mainsail. The wind was east, our direction north, and according to my computation, the current ran westerly; this caused me to imagine that by drifting we should run towards the coast: thrice did I feel an inclination to make the observation to the captain, and as often was I prevented from the fear of passing for an importunate and ridiculous interferer. It was not long however before I had to repent of my silly modesty, for by two in the morning the captain, or rather terror personified, came to waken me: he was in tears, and in perfect despair. What is the matter, captain? *Malé sumus, perdití sumus*, we are all lost! How so, what is the matter? *Hay fundo*, we have soundings! In fact the plummet had been thrown, and forty fathoms was the result, the wind as well as the current bearing
on

on shore. *Paciencia, paciencia*, said I. I went on deck, and now assuming more boldness and confidence, I advised our steering south-west. The captain, the pilot, and mate, agreed with me in opinion: we tacked, and in less than two hours were out of soundings.

10th August. The sun rose, lowering with a sadly portentous *sombreso* of thick black clouds. A number of gulls and other sea-birds flew towards shore at the sight. My birds picked up their food hastily; and the song of my larks, infallible *bassandras*, foreboded a perilous day, and in fact squalls and hurricanes succeeded one the other with the greatest rapidity. I was fearful we should not be able to take an observation; but fortunately a gleam of sunshine allowed us to ascertain our latitude, which was 29° : thus, as I told the captain would be found the case, the vessel, spite of opposite winds, had, by the mere force of the current, drifted more than twenty leagues, and carried us through the channel. Now was the time to steer for Europe, had we that course to take; but we were bound for St. Domingo, where, not only on my own account, but also on account of my insects, which had light only once in four-and-twenty hours, I was so anxious to arrive.

11th August. The violence of the wind gradually abated, the sea was pretty calm, the heavens serene, but the currents had borne us forty-four leagues to the north-north-east. The wind veered towards the south in such manner as to promise we might be able to shape an eastward course, after which we should only have to lessen our latitude in order to reach St. Domingo, where with the wind abaft we might arrive in a week.

We found ourselves this day in $31^{\circ} 30'$, on parallel with Charlestown, Carolina. At four in the afternoon, caught a bird, called by the Spaniards *tinosa*, the *larus* of Linné.

12th August. Calms prevailed till evening: the little wind occasionally breathed was from the south-west. We steered, S. E. by E. At three the wind freshened in the same quarter, and we directed our course south-east.

13th and 14th August. The wind gradually increased on the 13th, so as to allow our making four knots an hour. On the 14th at noon we were becalmed, but a gentle gale sprung up at four. Our latitude this last day was $31^{\circ} 6'$.

The whole of the 14th we spread all our canvas to catch the little wind that blew. Our sailors again caught a *tiburo*. Their avidity for this wretched fish, characterizes, at once, their laziness and want of taste: being easy to catch, they prefer it to the dorado, a fish exquisitely delicate, but which would have required more pains to take. They devoured the whole of it in one day, notwithstanding it weighed upwards of thirty pounds.

15th August. A light wind from the south-west advanced us two or three leagues in course of the night, but was succeeded the whole of the following day by a dead calm; a cruel calm, which threatened the frustration of all my toilsome, tedious labours! Four more of my *nopals* I found this day had perished, one of them with three young leaves, and an ample progeny of young cochineal. What on this, as on similar occasions, surprised me greatly, my misfortunes proceeded constantly from the plants too weak to resist the injuries of the sea air and their confinement, and not from the insects, as I the most expected, but which proved to be extremely patient, and astonishingly hardy: not one of them died; I had therefore considerable reason for self-gratulation, on having collected three other species of cacti at Campeachy, all of which afforded nourishment to the cochineal, though more sparingly and with less advantage than the *nopal*.

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At sun-set, the wind constantly feeble, after veering from the south-west to the south-east, sunk into a calm.

16th August. The wind still south-east: after luffing some time we steered nearly south-west, advancing about half a league an hour. At eleven at night the wind freshened.

17th August. Saw to leeward a frigate and another armed vessel, in company with four ships under colours with red and white stripes, and a number of golettas. We hoisted a red flag with a Burgundy cross, and fired a gun: they made sail for us; and the frigate, mounting thirty guns, and commanded by Captain Cherry from New York, placed us between him and his galley, in which were eight men, with four cannonades ready levelled, and with matches lighted. She hailed us in English: we were able to answer in Spanish only. She then sailed round our stern to our starboard side. The frigate put out her boat with an officer and six men on board; but the officer understanding no other than the English language, could but give us the longitude, which was $75^{\circ} 17'$ W. of Paris. We shewed him our passports from Vera Cruz, and our register; and after signifying that we came from that port, we presented him some provisions, such as potatoes, bananas, and calalon, with which he left us perfectly satisfied. What however is singular enough, we omitted to enquire the name of the commander of this small squadron, and which party it espoused, that of the English or the rebels: we were however led to conclude that it was the former, from his telling us his vessel, formerly the Boston, was now called the Daphne. The four vessels under escort, all of them mounted royals: the first I had ever seen.

We continued our course N. E. The full moon, on rising, brought us wind with showers; and I constantly found that every change of the moon was accompanied by similar variations.

18th August. The last observation was more clearly verified this day. At three in the morning we had a brisk wind and rain, and successive showers coming from every point of the compass. The whole of the morning we were crossed by contrary winds, and obliged to tack every instant. At noon the wind increased, blowing first from the south, and afterwards from the south-west. A gloomy sky now threatened a storm: the wind still increased, and some rain fell. We deemed it right to lower our stay-sail and reef the main-sail; but we lost much precious time by our vain alarm, for the storm blew over, and the night was fine. From noon we had advanced about a league and a half an hour; and caught a fish the *gasteros-terus* of Linné.

19th August. A cursed calm from three in the morning till nine. At this hour, and till the next day, we had wind from the south, and steered north-east by east, advancing but three knots an hour.

A colony of small migratory fish followed us on the right and left of our rudder, consisting of perch, *gasteros-terus*, and pilot fish. These shoals of inhabitants, from a different hemisphere, which are occasionally seen in different seas, resemble so many wandering colonies seeking an asylum. Do they encounter a ship, to them it seems a rock, a bank, an island, a shore: they constantly find food in its vicinage, and exertion in swimming, unnecessary borne as they are in its wake. At length the vessel arrives, and the colonies shift to their quarters.

20th August. The wind blowing N. E. by E. we steered S. W. by W.; it afterwards veered to the south wavering. We made scarcely three knots an hour. This slow sailing is little less vexatious than a calm, but more advantageous. We had to-day no rain; the pilot reckoned us in the longitude of the point of Mezy, in latitude three degrees

degrees twenty-one minutes *, so that we were yet two hundred-and-fifty leagues at least, from our destination : the land we sought for thus seeming to fly before us. Indeed it appeared to me, that the captain and pilot had acted very wrong in suffering us to be carried by the current from the Bahama channel, to so high a latitude as thirty-three degrees. I make no doubt that the elevation of our latitude above what we need have made it, was the cause of our being subject to all the calms and contrary winds we had experienced ; as, if we had avoided the current, in latitude twenty-eight degrees, we should have been secure of the trade winds much earlier, and at any rate, if we had coasted by the Lucayos, should have been certain of land breezes. The captain, in answer to my observation, pretended that on the day we were in latitude twenty-eight degrees the wind was unfavourable to our making eastward ; but this lame excuse was contradicted by my journal. The wind on that day was east, and by steering south, the composite action of the east wind and the current, which ran to the north, would assuredly have borne us in a south-east direction.

This day I had to regret the loss of other nopal ; and I felt it the more bitterly from the circumstance of the impossibility of fixing the insects attached to the dead plants on any other, as will appear in the appendix, wherein I treat of the cochineal insect.

I was perfectly in despair, and almost gave up the hope of being able to transport my little colony in health and safety to Santo Domingo, the cause of which I could only attribute to the length of our voyage and the want of friends, which had prevented my making more favourable arrangements.

21st August. This day the wind, which during the night had blown but gently N. E. by E., at six in the morning veering to the N. E., blew with greater force, and we advanced five or at least four knots an hour, and found ourselves in the longitude of Cape Nicholas Mole, latitude twenty-nine degrees forty-nine minutes north. The sky was beautiful, a line of clouds branching in slips fine as the flax which is spun from the distaff, in the direction north and south indicated, at length the speedy presence of the winds for which we sighed. Should they continue favourable but only six days, they will carry us to Cape François.

I observed Mercury an hour before sun-rise, in the constellation Cancer.

22d August. While running N. N. E. †, at the rate of five or six knots an hour, the wind increased to such a degree, that by five in the evening we were obliged to lower our tops and reef our main-sail. At noon by observation, we were in latitude twenty-eight degrees forty-four minutes, and in the longitude of Tortuga. The sun rose through a red and lowering atmosphere. At setting it was entirely obscured by vapour, which covered the horizon in every direction.

At ten, notwithstanding we had lowered our tops and top-gallants, we sailed at the rate of five knots. The waves beat with a deep and hollow sound against the sides of the vessel, and shook it by the violence of their percussión : twenty times did they break over the deck, and a violent rain falling at the same time, we were fain to close the hatchways, and put up all our dead lights. I endeavoured to sleep, but in vain, one could rest no where. Every billow threw the ship on her beam-ends, and not any thing could be kept steady on the deck. The sea ran dreadfully high : our fragile vessel was now raised an hundred feet from the level, and now engulfed in a hollow abyss, while the noise of the winds in the rigging was equal to the roaring of thunder.

* This is an error, it should be 33°, 21' as is seen by what follows. TRANS.

† It should be, as the signal shews, S. S. W., that is the directly opposite rhumb. TRANS.

I wished much to contemplate this horrible scene, but there was no keeping the deck ; and what, in fact, could be seen in a night as dark as Erebus ? We distributed brandy to our men, who seemed in spirits, and sang in midst of the storm *, while we were a prey to the most alarming apprehensions. At first, I was inclined from this circumstance to conclude that the danger was not imminent, but the solace of this fancy endured but for a moment. I reflected on the nature of these beings, so differently modified to us, and blamed my first conclusion.

23d August. Day beamed, yet brought us no alleviation, for the tempest raged with undiminished violence. The impetuous winds howled in the shrouds, dark clouds overhanging obscured the whole horizon, and the sea ran mountain high. Our crew were harrassed to death, the captain dejected, our rigging slack, and our sails in shivers ; every thing, in short, made us dread exceedingly a night like that we past, while, spite of some reddened clouds in the west, towards six in the evening, which we were willing to hail as a presage of a calm, or at least an abatement of the tempest, the winds seemed to redouble their force, and a heavy storm of rain continued till midnight.

24th August. This morning, though the sea still ran very high, the violence of the wind had somewhat abated : it blew now from the south-south-east. On rising I distinguished a gleam of sun-shine shooting through some light clouds ; and as the day advanced the sun shewed itself at intervals, and enabled us to take the latitude at noon, which we found to be twenty-six degrees twenty-eight minutes : our longitude was that of the Western-Cape of Maguana, so that, notwithstanding the storm, as I had premised, we had lost nothing of our longitude, and on the other hand, had diminished our latitude by nearly fifty leagues. We steered east-north-east †, certainly a bad course, for had we directed the vessel to the south, we should in two days had Maguana under our lee, and in three days after might have made the Cape, from which we were only a hundred-and-twenty leagues distant.

Though I have made seven voyages at sea, I never was witness to such dreadful weather, unaccompanied with lightning and thunder. The storm had driven from us most of the shoal of colonists which surrounded our rudder, for of all their number remained only two small white pilot-fish, and two large black perch. My parrot, and indeed all my birds, foreboded the bad weather by their agitation, fluttering, and louder and hoarser notes than usual. I lost none of them. My jalop suffered so much as to make me apprehensive of its perishing ; but fortunately my insects and nopals received less injury than I expected. My first object was the preservation of the former, for I conjectured that I might meet with nopals in the King's garden.

25th August. The wind blowing east-north-east, we steered south till noon, when it appeared by observation, we were in twenty-six degrees twenty-five minutes, and on the meridian of the Caicos. The winds variable and light throughout the day.

26th August. Calms and contrary winds again fettered us to these seas : it seemed as if we were never to be released from our captivity, and as though the captain and pilot were in league to prolong it. The last fault they were guilty of was in not making way to leeward by a west-south-west course : we should, it is true, by this means have got lower down than Maguana, but by help of the south-west winds,

* *Ma reso esperto si poco teme*
Che dorm' al suon' del mar che freme
O sul' prora cantando va.

METASTASIO.

† It should be E. S. E. the current running S. W. TRANS.

which afterwards prevailed, we should have recovered our latitude *, and have advanced eighty leagues on our way. It certainly was most vexatious to have been upwards of three months at sea, and have run nearly two thousand leagues, to fetch a place but five hundred leagues in a direct line from our point of departure.

At night however we had westwardly winds, but so feeble, as also on the two following days, that we scarcely proceeded at the rate of a league an hour. This however was a better fate than befell us on the 29th, when we had a dead calm.

27th August. At nine in the morning this day we fancied we discerned a shelf, a white band thirty toises long †, was seen nearly in the direction we were sailing. Was this the trunk of some enormous tree, such as is sometimes seen in the Gulf of Mexico? Was it some vessel which had capsized? Round it was seen a number of sharks, and skimming about flocked a variety of sea-fowl, whence I conjectured it to be the carcase of some vast monster of the sea. The captain, against my will, as I regretted the loss of so much precious time, steered towards it, and approached it within the distance of thirty fathoms, but at a hundred we already distinguished what it was by the putrid smell it exhaled. One single piece of this leviathan appeared to be fifteen fathoms long, besides which were seven or eight continuous but disjunct pieces of from two to three fathoms in length: the breadth of it was seven fathoms, and its thickness, besides about three feet which floated out of the water, from six to seven fathoms. It had been rotting, no doubt, a considerable length of time, for it resembled nothing but a hide blown out, mishapen, and without trace of any form; the entrails, floating on the water like the filaments of molluscæ, extended in network the space of eighty feet: many separate parts were seen about it at the distance of about twenty fathoms from the main piece: we clearly distinguished the whole to be rotten flesh notwithstanding a greasy froth of dazzling whiteness floated all around. Some parts of the carcase were of a blackish hue, and gore like: the whole undulated irregularly with the water, whence I concluded that the bony frame was dissolved, and that, of course, the monster must have long been dead. But again, to what enormous animal could these vast relics have belonged? This it is the province of our illustrious Pliny * to decide, of him to whom is known the whole surprising volume of nature's grand productions.

This day the observation at noon gave for our latitude twenty-six degrees twenty-one minutes: our longitude was the meridian of Fort Dauphin.

30th August. Our latitude this day was twenty-five degrees twelve minutes north: our longitude that of the Caicos. At six in the evening, a gale sprang up. During the calm, a flock of birds, frigates, gulls, lari, and boobies, availed themselves of the pursuit, on the part of dorados and bonitos of the flying-fish, to make them in turn their prey. The sea was beaten and covered for the space of a league by the flying-fish, alternately in the air and the sea, by the bonitos, who pursued them, and the winged tribes which caught these latter from the surface. Who has ever seen the king hunting in the plains of Choisy, Mount Rouge, or St. Denis? Here game enclosed is driven from all quarters as into an enclosure: the hunt is a hunt no longer, but the field of sport a slaughter-house: such was the hunt of the doradoes and birds.

The aspect of heaven was through the whole night frightful: here dingy clouds, there grey were furrowed by incessant flashes of vivid lightning: the wind south-east: our course south-west by west

31st August. This day we were unable to take an observation: the sky still overcast, the wind less strong, after passing to the south again, veered to the east. An unfor-

* It should be longitude. TRANS.
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† 190 feet English.
5 T

‡ Buffon.
tunate

fortunate swell from the north had prevented our enjoying rest or comfort, whether by day or night, for four preceding days.

1st September. This day at noon we found ourselves in latitude twenty-five degrees, twenty-four minutes. The wind, constantly east-south-east, seemed regular, and continuous. We hoped to see Maria Juana, called otherwise Maguana; but not succeeding in our expectations, laid to, for fear of running on the shallows. Some few drops of rain fell this day.

2d September. This morning we proceeded on our course at five o'clock, and at six hoisted our square sail, or sail of fortune, steering west-south-west to make the land. At length, at eight o'clock, we perceived to windward some extremely low lands, bounded by reefs, on which the surges breaking, rose to upwards of twenty feet: this at least we computed, as at four leagues off the breakers resembled the latten sails of fishermen. We thought these lands the Caicos, and flattered ourselves with reaching the Cape next day: the land, however, turned out to be Moguana, as was verified, notwithstanding the different opinion of the pilot and captain, our joint observations shewing the latitude twenty-two degrees, twenty minutes, the exact latitude of Moguana.

So many errors on the part of my conductors encouraged me to offer advice. I recommended the captain to run on opposite tacks, in order to double the Heneagas to windward, seeing we were steering direct upon them. He heeded me not, but laid to. What was the consequence? At eight in the morning we saw Little Heneaga: it was mistaken for the Caicos, and we did not change our course. At noon, land! land! was called out. Some said it was Tortuga, some the Main: neither were in the right: it was Greater Heneaga, along which we were obliged to coast from east to west the whole afternoon, in order to double it to leeward, with the disadvantage of a wind in opposition to the currents.

In coasting along Greater Heneaga, entirely surrounded by shoals, while from three to four leagues from shore, we saw bottom a-head: terror now was general, and the clamour usual on similar occasions with Spaniards, served only to increase the alarm. Scarcely had we time to tack about. This would indeed have been a wreck in port, and, thanks to the drunkenness and inexperience of our pilot, who, notwithstanding, reckoned himself a very clever fellow, we were in this instance placed in greater danger than we had experienced before throughout the whole three months of our voyage.

4th September. The wind blowing strong from the north-east, we kept under sail all night, and in the morning, by ten, got sight of the head-lands of St. Domingo.

At noon I recognized Point Jean Rabel and Cape Fou to the southward. I was exceedingly affected, for I had reckoned on reaching the Cape that day, which it now was impossible we should do while the wind blew from the quarter it did. The vexation prevented my eating any dinner: the captain, noticing this, enquired the cause with much solicitude and kindness. I seized the opportunity presented to me by this question, to entreat him to land me at Saint Nicholas Mole, offering to pay all the charges of anchorage and port dues his compliance might occasion: he was grieved even to tears at the thought. He said, that the moment was at hand when we must separate. What, observed I, did you then imagine we were never to part? Have we not through the whole course of life constantly before us examples of separations in all men from every object of their fondest attachment, separations which every one of them but precursors of others? Do we not see that nothing is durable, nothing stable? Alas, my friend, this is an established law to which of necessity we must submit either with good-will or per force! You have been kind to me in extreme: the task your generous heart prescribed has been most amply accomplished; would to

Heaven I were able to render you still more essential services; yes, my future task shall be to shew my gratitude by every possible means.

The captain listened to reason, and readily agreed to steer for the Mole, though still in melancholy mood. Soon, however, the pleasure of being on land earlier than he expected, and of not having to buffet with the waves for two or three days longer, which possibly it would take him to reach the Cape, in case the winds should not become more favourable, unruffled his brow, and we entered the bay of the Mole, each alike gay and cheerful: as for me, I was so pleasingly surprized to see myself on St. Domingo, that I rubbed my eyes, and dreaded to wake from a dream.

My first care was to wait upon M. de la Valtiere, the King's lieutenant, at Saint Nicholas Mole. I informed him who I was, and what the object of the voyage I had undertaken. He loaded me with kindness, sought how to render me service by every means, and punished according to their merits some sailors who had given me cause of complaint. I had here also the good fortune of forming an acquaintance with Messrs. Dunsteville and Dumanoir, of the engineer service, who shewed me the greatest civility.

I now wrote to the intendant of the colony, but burning with impatience to reach Port au Prince, without waiting his answer, I availed myself of the offer of M. de Vassal to repair thither, in a King's galley, which he commanded. We sailed on the 17th September, and on the 25th arrived at Port au Prince.

The intendant gave me a most kind and gracious reception: he ordered payment of the two thousand livres due to me, according to the direction of the minister; and moreover, gave me an appointment under himself, with a thousand crowns a-year.

The pleasure I felt at seeing my friends again, the fatigue I endured on my voyage, the change of air and diet, all combined, occasioned me a sickness of more than six weeks duration.

As soon as I recovered, I wrote to my parents and friends. I forwarded a relation of my voyage to the minister, and dispatched the first specimens of the plants I had brought from Mexico for the King's garden; but all these were lost with Captain Gillet, on his return from the Cape, whither he had come in the Postillon of Rochelle, with the first intelligence of an embargo.

My Spanish captain, from whom I thoughtlessly separated myself at the Mole, while he was careening his boat, without taking leave, revenged himself of my incivility, in a manner highly honourable to himself, by sending me back a bill for fifty-four dollars, which I sent him before my departure, that is to say, fourteen to repay advances he had made me, and forty which I held it my duty to pay him for my passage. I much regretted and still remember with the liveliest affection, this excellent and obliging young man, whom I never can think of without inquietude, as since our parting I have not once heard from him, notwithstanding his promise of corresponding with me. May I never hear but good news of this youth, to whom I was indebted for my return, however accompanied, as it happened to be, with tedious toil and danger!

I did not enjoy the sweet arising from the success of my expedition without some bitter mingled in the cup. I had effected a matter of public utility, and could but become a butt for the arrows of envy; still the shaft which struck the deepest, and caused the greatest pain, was an insinuation attributed to have been circulated by the Spanish captain, by a man so truly my friend, *that I had stolen my cochineal.*

It was however impossible that any such like charge could have been made by the captain; for, separate from his being most affectionately attached to me, I never had told him so; but, on the contrary, as was the truth, that I had bought them at four
different

different places in Mexico; and I have such opinion of his honour, as to be secure he could as little be guilty of falsehood as of calumny. If it be said, however, that the captain might have committed such a double outrage, for his own defence, and in order to disculpate himself in the eyes of the Spanish nation, for being an accomplice in carrying off the prize, I must answer, that while at the Cape he could not have been in a predicament requiring such procedure; nor even if he were in his own country do I believe that any charge on such account could be alledged against him, since, however severe the laws which prohibit the exportation of dry cochineal, there are none which forbid the transport of it alive. There is not, therefore, the slightest likelihood that this dart was lanced by the captain; no, it was the poisoned javelin of a secret enemy, some foe to my tranquillity, or rather of some infamous miscreants who look on all that is meritorious only with invidious eyes.

And after all, can it be imagined, if it had been impossible for me to have purchased this precious insect, an insect I was so anxious to naturalize in our country, that I should endure the abortion of my project on account of a false and ridiculous delicacy? Most assuredly I should not, any more than a savage coming to France in search of grain, with which to enrich the land of his birth.

After such an avowal, doubtless my testimony will admit of credit; but more may be said: have I at any time passed with any one for a fool or an idiot? and should I deserve to be esteemed other in stealing a matter, precious certainly in my eyes, but which might be obtained for a mere trifle, and in thus exposing myself to the attacks, the mortification, the obloquy, which must naturally follow? In fact, what at the first custom-house could I have answered, on being interrogated, how I had got his production? A lie in such case would not have been less dangerous than a confession hurtful: I should have been exposed to the loss of the whole fruit of my travels, and in the eyes of Spaniards have incurred an opprobrium more painful to me than death.

I think I do not deceive myself with respect to right and wrong. To have stolen the cochineal would, in my opinion, have been an act of social injustice, as far as regards the cultivator whose garden I might have despoiled, an injustice which I sought to avoid, and I think successfully; for by buying it, I only committed a wrong against the nation from whom I bore it away: now, in my position, I regarded myself as the prototype of a different nation, on whom nature has bestowed the same prerogatives, the same right to her favours; and if, after offering payment for the cochineal at whatever price might have been imposed, all the Indians to whom I might have applied had combined to refuse my request, I should then have considered myself, as in case of war, absolved from the restrictions of social laws; but in infringing them, in carrying away by stratagem what had been denied to entreaty, I would have compensated the individual towards whom I might be guilty of a real injury, and have covered with plasters the ground from which I bore off my prize.

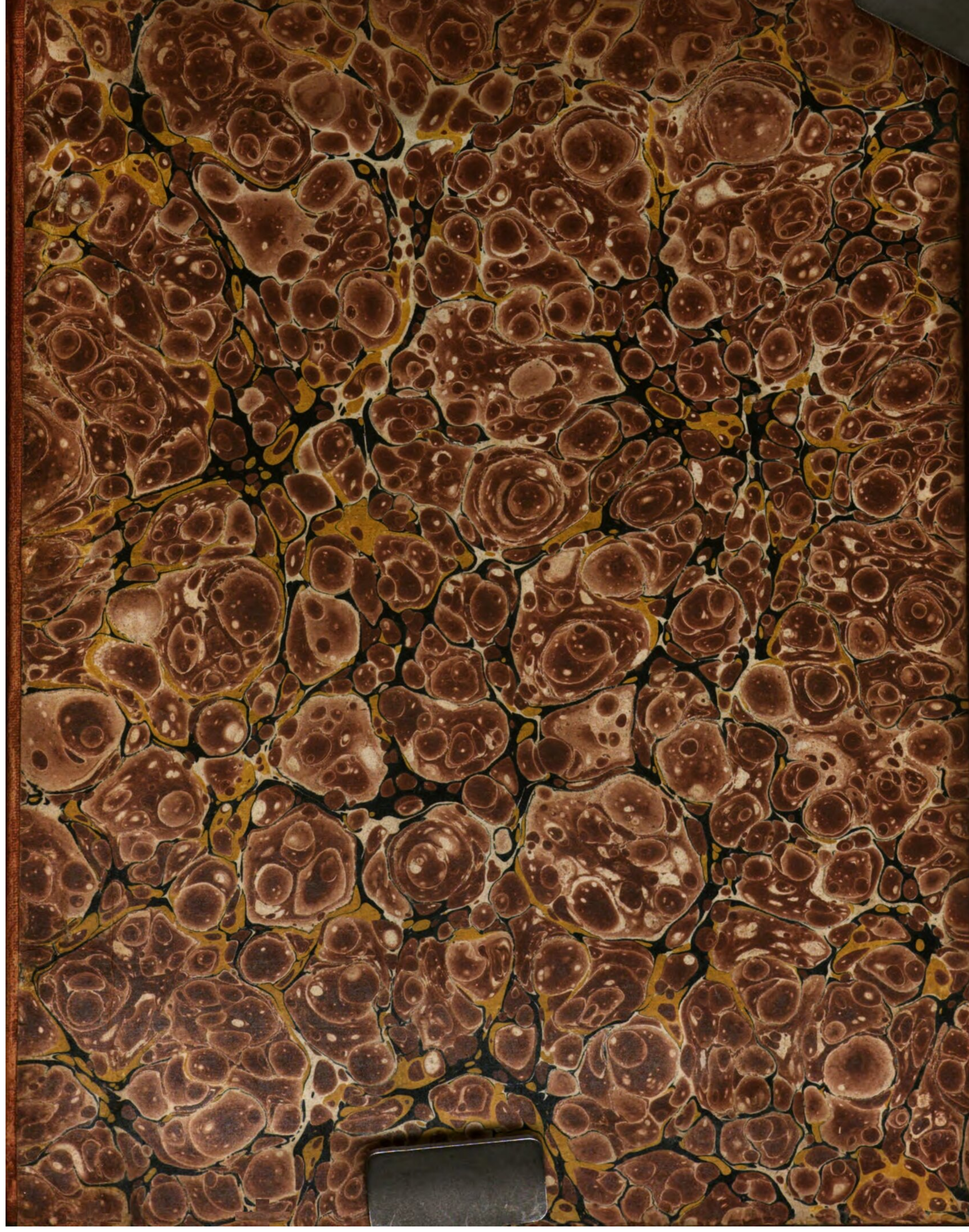
From the sentiments which thus with the utmost sincerity I have exposed, let it be judged if I have ought wherewith to reproach myself. Were I to decide, from my heart should I gain acquittal; but on a subject so delicate, and involving myself, I must leave with others to decide.

END OF VOL. XIII.

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